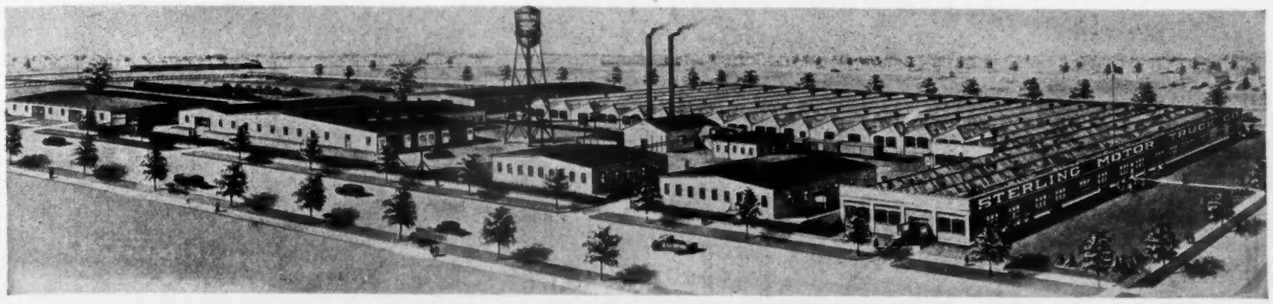

THE PRESIDENT'S PAGE

COMMERCIAL CAR JOURNAL

PHILADELPHIA PENNA.

DECEMBER, 1932 VOL. XLIV, No. 4

The Truck Industry Must Protect Itself — First, by Eliminating Unfair Time-Deal Competition; Second, by Selling Units That Will Perform Economically and Satisfactorily Under Conditions for Which They Are Intended.

By

E. M. STERNBERG
PRESIDENT
Sterling Motor Truck Co.

IT is natural, under existing conditions, that evils in industry come in for close scrutiny, and that corrective measures are applied just as quickly as proper remedies can be found. This, of course, is a matter of self-defense and preservation.

The motor truck industry, like others that suffered severely since the peak production days of 1929, has undergone this purging process, and many mistakes of former years have been corrected to a large extent. It is a cleaner industry today than prior to 1930, although it may be correctly said that several very outstanding and detrimental influences still remain with us.

There is, for example, the continued practice of selling irresponsible buyers, with the attending final losses caused by repossession, but most serious are the handicaps imposed upon legitimate operators through such sales. Competition brought into play by "fly-by-night" operators has done more to kill off good accounts than any other one factor. To illustrate the point: In a five-year period, six different manufacturers sold one operator equipment, and all of them were compelled to repossess before receiving half of their money. For the remaining half they received worn-out trucks that had practically no value, but despite this, apparently no attention was paid by any of these manufacturers to the bad experience of the other, or to the effect these sales had upon the legitimate, honest owners, who could not exist under the rates charged by the operator in question, who never intended to pay for his equipment, which were in fact below his actual cost. This is only one of hundreds of similar instances that could be pointed out indicating flagrant disregard of sound business principles.

This class of business also has had much to do with promoting agitation on the part of railroads, resulting in adverse public opinion and legislation, that has severely affected the entire industry. Insurance companies have also been much concerned due to the practice of such operators in overworking drivers to offset their lower ton mile rates, resulting in serious accidents. Loss ratios have mounted to the extent where insurance rates are now almost prohibitive—in fact, in many instances insurance companies even refuse coverage entirely.

Sales such as described are positively unfair to legitimate business, and it is deplorable that motor truck manufacturers permit a continuance, especially in view of the ultimate loss to themselves, to say nothing of the unfairness to legitimate operators who want to operate on a business basis, and in a manner permitting of a fair profit, and the meeting of their obligations when due.

Motor trucks positively cannot be sold successfully over 18-month periods without at least a 25 per cent cash down payment, and to people experienced in transportation, who enjoy a record for fair and honest dealings, anything less results in nothing other than that which we must recognize as the remaining evils in the industry.

Salesmen have much to do with promoting a class of business that is detrimental to all concerned through their attempts to sell undersized units to beat price and terms competition, but they cannot be blamed entirely if their employers signify their satisfaction by the acceptance of such business, knowing in advance that nothing but trouble and loss will follow. The industry as a whole is open to severe criticism on this score, and legitimate operators are justified in patronizing only institutions which refrain from promoting business that is detrimental to theirs.

It is true that orders are scarce, due to general conditions, but what justification can be advanced under any circumstances for acceptance of business, the net results of which are losses to the manufacturer, and the

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DOES SALES MATTER LACK SELLING SPARK?

Is Literature Lifeless and Does It Fall Short Of Being an Aid to Salesmen? Is Advertising Lacking in Originality? Do Loose Truck Ratings Encourage Loose Selling Methods in the Field?

In this article the author of "We Need Leaders—Not Drivers" and "Does Our Industry Need a Dictator?" discusses factory sales literature, truck advertising and truck ratings.

He punctuates his discussion with constructive suggestions.

Since these suggestions are founded on 15 years' experience in the industry as salesman, sales manager, wholesale manager, branch manager and vice-president of a truck company, they merit careful study.

Again we solicit the views of readers.

This article concludes the series, and opinions will be welcomed on any or all three of the articles published.

Express yourself frankly. Do it now!

WITH few exceptions sales literature seems to be treated as a necessary evil on the factory expense account, and as a result the average piece of truck literature does not display much originality or sales pull. In fact, except for cover design the average buyer would almost wager that the same man wrote all of the pieces and ran out of ideas after he finished the second one. Drawings are frequently used that make the ordinary truck assume the appearance of a sport model, the size is greatly exaggerated in proportion to its rated capacity, cabs are shown with frills and curves resembling limousine lines, tires are enlarged, wheelbases increased and art injected throughout so profusely that the actual chassis looks like a 1905 model in contrast.

I have heard many salesmen say: "The average truck booklet of catalog falls considerably short of possessing actual sales appeal."

Specifications are, as the old custom goes, to be found on the back cover in unusually small type as if to discourage close scrutiny, and worded so that as little information is given as possible pertaining to certain facts that the real informed truck buyer wants to know. Favorable specifications are elaborated upon, while others, perhaps not so outstanding on a comparative basis, are treated very briefly. If the engine develops considerable horsepower, the H.P. is displayed in large box-car letters, while torque is treated as secondary, and perhaps the number of main bearings or total bearing area is not even mentioned.

I have seen literature describing two different models produced by the same manufacturer wherein the model with the semi-floating rear axle was briefly mentioned as being of ample proportion, while the descriptive matter on the other model amplified to considerable length the advantages of the full-floating type of rear axle. Speaking of rear axles and axle capacity, even if made by the manufacturer or the Blank Company, little or nothing is given with reference to index capacity, number or size of the axle, bearing upon its actual capacity, and if the buyer insists upon definite information quickly it would usually prove embarrassing to the salesman. The type of brakes used is usually described, but braking area is seldom mentioned. Spring dimensions are usually briefly given, but spring-pad capacity is very rarely printed.

Specifications should be complete because the truck buyer depends more upon comparative specifications today than ever before. Therefore, why not give the engine torque in foot pounds, and also include a power chart? Tractive effort is far more important than many other specifications that are usually elaborated upon and should be worked out in a concise manner in all specification data. It would be advantageous if information of this nature were confined to one piece of literature. It should not be necessary to procure an accumulation of supplements in order to give the buyer complete information describing each particular model. It would save the salesman and the buyer much transportation engineering figuring. And, as there is nothing to hide, why not facilitate matters in every way so that all important information is quickly available, thereby saving considerable time and expense?

Truck literature was originally intended as an aid to sales, as ammunition that the salesman would be proud to carry and use; printed facts with which he could substantiate his statements, containing an abundance of fresh concise information that would create interest and desire. Truck-minded conversation on paper that would appeal to truck-minded operators. This is not intended as a criticism of the copywriting ability we have throughout our industry; not in the slightest because I have seen real good original copy cut down to the usual blah too many times by the engineering department or executive staff. Real good truck literature seems to suffer too much from the desire on some executive's part to "save money" by holding down the expense, advancing the argument that only a small part of it will be actually read and that salesmen will only "waste it," or that the chances are that an attractive high class piece of literature will not be used to full advantage by the sales organization. The above arguments have more than once deprived salesmen of real "sales assistance" and that is exactly what literature is intended to do. In fact, a certain truck manufacturer a few years ago sent out a request to its organization

inviting each branch manager and salesman to write their advertising manager outlining the strong points and describing what each man thought was the greatest value of a certain piece of literature then current, and offering a substantial cash prize for the best answer. The prize was won by a salesman in a small territory who had only been with that company about one year, and his answer briefly was about as follows: "The piece of literature referred to is so inviting in appearance, so attractive in its general set-up and contains such an abundance of outstanding evidence of quality in our product that I am inspired to work harder and with greater confidence every time I look at it." I am quite sure that real sales literature suggestions could be procured in more than sufficient abundance that would hit hard if the proper questionnaire were sent out to the men who actually do the selling—the salesmen and dealers.

If literature is of the type that inspires a sales organization, then it will appeal to the buyer, for who knows better than the salesman what the buyer really wants? Thus two valuable purposes may be accomplished by improving sales literature.

Advertising

Truck advertising copy, like truck literature, has become rather stereotyped. After examining many current examples of both, it is noted that practically every example emphasizes dependability, long life and economy —stock words that have been generally used for at least 10 years. They all tell you their trucks are all dependable, economical and hogs for punishment, model for model against the field regardless of price, chassis weight or any other important factor. Shop-worn expressions still predominate, such as "Every Inch a Truck," "Sturdy Truck Construction," "Greatest Truck Value." Yes, I believe if a vote were taken the majority of salesmen and buyers would agree that truck publicity has lost its punch, that, in fact, the general run of descriptive matter is hanging on the ropes.

Generally speaking, the opinion of the sales organization receives very little consideration with respect to developing new models that can really be talked about in advertising and literature. Too frequently new models are planned and put into production without procuring ideas or suggestions from the men who have the job of selling them. This often results in the necessity of selling the salesmen and dealers on a particular chassis that falls short of expectations or current demand. I have never quite understood the psychology of this apparent disregard of the selling organization in this direction, for it is only a perfectly natural conclusion that if we give the sales organization what they want to sell, it will go over with a bang, because their opinions are based on selling experience and customer demand.

I believe the average sales manager and salesman in the field has a darned good composite picture of a truck chassis that will meet most all the requirements of a certain rating class and a close-up cross-section of just what appeals to the buyer. Then why not give these men the chance to advance constructive suggestions? The idea of forcing certain models down the sales organization's throat with the curt command to "sell them" is not what could be regarded as good merchandising. If suggestions were procured from the sales force and dealer organization, they could be culled out and easily checked so that the new model would embody the majority of their ideas and would be accepted by them with open arms and

genuine enthusiasm. It would be their baby, so to speak, and therefore there would be little to worry about as to effort and results.

Why should any manufacturer keep behind the procession because of the inventory situation (frozen assets) or machinery investment? Why, when it might be cheaper to throw both out the back door, swallow the loss, and to bring out a new model that is really "new" and will sell, rather than to disguise the old "juggled units" with a new radiator, hood and paint combination and take a greater loss in dollars and sales morale, due to the disguised model's own inbuilt sales resistance?

Of course, designing should and must be the product of the engineering staff, but we cannot forget the sales angle. I will always remember how a certain sales executive, who today is still a very important man in our industry, a few years ago revived a company that was slipping so fast it almost looked hopeless, and within 12 months, almost as if by magic, sales soared upward with almost unbelievable rapidity. How could this possibly have been done, and how could it be done today, you may ask? How? He went on a barnstorming trip and counseled with his own sales managers and salesmen right on the firing line, listening to his dealers, made a lot of notes, came back to his plant and built a truck in line with their suggestions.

It is certainly a peculiar state of affairs, to express it mildly, that an industry as big and important as ours should after all these years find itself without a standard truck rating. If we are going to be real frank about this situation we must admit that the absence of a standard rating is the result of a "catch-as-catcher-can" policy on the part of truck manufacturers to equal competition, evading at times sound engineering principles, not to mention good business practice.

Today the truck operator is probably more responsible for the serious recognition of the importance of truck ratings by the manufacturers than from any initiative on the part of the manufacturers themselves—and there is a reason. A careful check on the complete comparative specifications of most all the 1½-ton rated trucks of most all makes is about as fine an example of the best way to explode public confidence as can be imagined. Some of these "accordion" trucks represented in this class, and which have been in existence for some time under different model numbers or letters, can by a splendid stretch of the imagination be practical for the requirements of the florist, the contract hauler or the excavator, as the case may be. It is certainly a shock even to a salesman's imagination to read a new piece of literature announcing a brand-new model, "2 to 3 tons," printed in box-car letters at the former price of the 1-ton truck, to find that about the only difference in specifications is that a full-floating rear axle replaced the semi-floating type used in the 1-tonner and that the only increase in chassis weight was due to the addition of dual wheel equipment.

Then too the thought is rapidly gaining with truck buyers that possibly it would be a good idea to manufacture tractors for the specific purpose which they were intended, rather take a standard chassis with a short wheelbase and convert it into a job that may answer th e purpose. Taking a so-called standard 2-ton truck chassis with a 168-in. wheelbase and stretching it to 210 in., putting on the largest tires the job will stand and reducing the gear ratio does not make a 5-ton truck, or does it simplify the parts service department's problems when replacements are needed.

Quoting from President R. H. Scott's article on the President's Page of the July issue of the COMMERCIAL CAR JOURNAL—"We can not complain much if retail salesmen make overstatements, for there is no agreement among the makers, nor any standard since capacity has become a myth."

In other words, we can not complain much if retail salesmen make overstatements when the manufacturers themselves encourage recommendations that tend to grossly overload the unit. Fortunately, this condition is not true of all builders, but it is of some, particularly those trying to meet certain price competition.

Judging from the present trend of truck specifications and rating, it may be only a question of time when all makes of trucks, model for model, will read almost identical, and then Mr. Truck Salesman, in the minds of many truck prospects, will be just another salesman with just another truck. In fact, we have almost arrived at that stage now, and in the absence of printed "material analyses" it is difficult indeed for the truck buyer to differentiate. Oversize tires as standard equipment seem to be the silent indicator of overloading possibilities, while a half inch or so of additional frame depth of the same thickness is another subtle invitation to increase the payload even if spring pad capacity or axle size has not been increased proportionately.

Not so long ago, trucks were built by manufacturers with the courage of their own convictions, pertaining to tolerances and margin of safety, but it seems that the free-for-all race to former sales volume and the markets' susceptibility to price have created in some truck producers a partial disregard for certain important factors. It would seem that in many instances new models are created for the distinct purpose only of producing a bigger 1½-ton than offered by competitors for a little less money.

Of course, there are other important factors aside from specifications which should wisely guide the truck buyer in selecting truck equipment, but our industry has so grossly overemphasized the "specification-comparison idea" that it has almost become a nightmare, where 1½-ton chassis grow rapidly into 2 or 2½-ton chassis, and engines of unusually and unnecessarily large size find their way into small chassis to entice the inexperienced buyer.

Naturally, the truck user is constantly increasing his demand as to truck ability, but bad education is responsible for the fact that both the truck operator and the truck manufacturer are holding prices down with one hand and stretching truck ability with the other. Such practice is illogical and can't be extended beyond sane limits without revolutionary changes in design which have yet to escape from the inventor's mind.

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legitimate operator, who must face this condition and competition from the fellow who uses his equipment without a thought of paying for it?

In our own particular case we have found a means of eliminating the most serious of these evils through a control at a central point, and any failure will, under the circumstances, not be due to a lack of determined effort and a definite plan. It is our hope that every manufacturer give this grave question much thought with a view to paving the way to permanently and completely eliminating this evil from our industry.

Grave thought on the part of manufacturers should also be given the matter of selling the correct unit. The day of selling just another motor truck is over—transportation progress and competition demand units suitable for specific purposes to effect necessary economies and earning power that promotes successful owners and operators.

This latter is even more important than the elimination of questionable time deals, because any neglect on the part of the manufacturer along these lines will more directly affect the success of the operator. Surely there can be no more important issue to truck manufacturers, in fact every one connected with the industry, than saving and promoting successful, legitimate owners.

The industry must protect itself—first, by eliminating unfair competition created by time deals that positively cannot be worked out successfully—and, secondly, by the sale of units that will perform satisfactorily and economically under conditions for which they are intended, thus permitting of a fair profit to the owner.

The best proof that time-deals to irresponsible operators are the serious evil in the industry is found in the fact that cash sales and equitable time sales to responsible business concerns have never caused the industry difficulty or grief.

STOP 'HAND-PRESSING ONLY'; GET BACK TO 'BARE-HANDED SELLING'

Now Is the Time for 'Sad-Handed Salesmen' to Realize That the Old-Hat Principles of Selling Still Work Today

By RAY GILES

Partner, The Blackman Co.

WE were walking through West 44th Street when a sign in a tailoring shop caught George's eye. It displayed the words "Hand Pressing Only." We had been discussing today's salesmanship and I suppose it was only natural that the connection between the sign and our subject struck us simultaneously and made us laugh. "That sums it up," declared George. "If the old days were days of 'Bare-handed Selling," this period might be called the era of 'Hand Pressing Only.'"

Only two days previously I had been talking with an executive of one of the biggest chain store systems and I couldn't help recalling how well his remarks, too, fitted in with the tailor's card. "Manufacturers would be shocked if they knew how few of their salesmen make any real attempt to sell these days. The average salesman makes a condolence call, squeezes your hand sympathetically and invites you to give him the best alibi you can to turn in for a call report. If the salesman of 1929 was often a glad-hander, this fellow might be called a sad-hander."

Another man, the purchasing agent for a Connecticut plant, kept track of twenty-five salesmen's calls in a row and reported that only seven made any serious effort to sell. You can pick up plenty of similar reports without half trying. And you will get them from buyers who are supposedly being called on by the crack salesmen of the country.

EDITOR'S NOTE

Mr. Giles is an advertising man and the author of several books on sales management. "Developing and Managing Salesmen," "Sales Expansion Question Book" and "500 Answers to Sales Objections" are three of the best known of his works.

His remarks in this article were originally published in Advertising & Selling. We feel their republication here is justified because they apply equally well to the truck business. Consequently factory sales executives and every man in the trade will find them inspirational and instructive.

In addition to the condolence touch in salesmanship, dealers make other charges against today's salesmen which include:

—passing up sales tactics which helped carry us through past depressions.

—inadequate increase in number of calls per day.

—letting nature take its course with respect to substitution of shoddy goods for good ones.

—waiting around for some new technique in selling to fall from the heavens into the salesman's lap.

—and—in some cases—actual failure to believe that the buyer is in the market even when he gives plain indication that such is the case!

The more one talks with buyers and salesmen these days the more one becomes convinced that while buying may be deader perhaps than it has been since 1873, long frigid periods of deliberation on the part of the merchant often rush headlong to swift buying climaxes. It is so easy to get away with "not in the market" that the buyer makes that statement almost automatically and even when he knows he may not be able to defer purchases more than a few days more. Low stocks seem adequate but a fair day's sales may easily deplete them. Then "not in the market" turns overnight into real need. That is why this excuse should be less acceptable to the salesman than ever before in his lifetime.

Which leads to an interesting fact. The buyer's objections of today are essentially no different from those of past depressions. They are not even different from objections given in normally good times. Even in 1929 there were plenty of merchants who shooed

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REP. RAYBURN WAGGLES THE SCARECROW OF REGULATION

Says Railroads Must Be Protected But Shouldn't Be Given An Undue Advantage Over Other Services

By HON. SAM RAYBURN

Chairman, House Committee on Interstate and Foreign Commerce

EDITOR'S NOTE: In a radio address the Honorable Mr. Rayburn expressed the belief that the coming short session of Congress would see the passage, at least in the House of Representatives, of three measures involving transportation, one of which would be a bill for the regulation of motor trucks and buses engaged in interstate transportation.

The following paragraphs summarize his views on the need for Federal regulation.

WE must recognize the new and competing forms of transportation and subject them, in so far as necessary, to Congressional regulation as we were forced to regulate the railroads when they became important in interstate commerce.

There is one school of thought which would use the power of Congress to retard the development and use of the new means of highway transport. There is another school which would likewise use Congressional power through inaction of Government to let the new forms of transport run wild, as it were, and engage in all the practices of discrimination between individuals and localities which have been condemned and forbidden in rail transportation; and disregard safety on the concrete highways while enforcing strict and expensive regulation to assure safety on the steel highways. I do not agree with either of these extremes. The power of Government should never be used to put a legitimate competitor out of business. But it is the duty of Government to place under similar reasonable regulation businesses that are competitive and where the public interest requires regulation.

I do not believe that the Government should lend its power to suppress a new and developing labor-saving device merely to protect the profits of those engaged in using an older form.

On the other hand, I do not believe that the Government, through its inaction or indifference, should ignore the safety of person and property and leave without remedy the abuses and discrimination which may be as prolific among those engaged in the new forms of transport as formerly they were among the railroads.

The people of this country are entitled to the most economical and convenient method of transporting their goods. The new forms of transport must be given a fair chance, but they should not be unduly subsidized at public expense. The railroads must be protected from unfair discrimination without being given an undue advantage over their competitors. On June 21 I introduced a bill to regulate buses and trucks in interstate commerce. I expect to ask for hearings on that bill at the Short Session, and I am hopeful that Congress may act upon it.

The present plight of the railroads is due only in part to the appearance of the new and competing forms of transport. The greatest immediate difficulty has been the present financial depression. That is more serious than at first appeared because it has turned out to be the result of a mistaken economic policy on the part of

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BUSTING THE 5 FALLACIES RAISED TO ANNOY TRUCKS

An Array of Plain Facts That Will Help the Public to a Better Understanding of Truck and Road Issues

By PYKE JOHNSON

Vice-President of the National Automobile Chamber of Commerce

FIVE widespread fallacies face those who are interested in getting at the facts of modern day transportation. These are the statements that:

1. The motor truck is responsible for the present plight of the railroads.
2. Motor truck owners do not pay a fair share of highway costs.
3. The motor truck does undue damage to the highway.
4. Ownership of motor vehicles is an evidence of wealth, and hence should be an instrument for taxation of all kinds.
5. As a broad cure for all of these ills there is suggested a fifth fallacy which is that regulation, restriction and taxation of the vehicle will straighten everything out.

The purpose here is to analyze each of these statements and then to outline briefly, a suggested means for arriving at sound public policies in respect to transportation.

1 HOW MUCH HAS THE TRUCK HURT THE RAILROADS?

At the present time, there are some 3,500,000 motor trucks in the United States of which some 93 per cent have less than a two-ton rated capacity.

Broad surveys made by the government show that:

Eighty-six per cent of these vehicles are privately owned and operated;

The bulk of their tonnage is handled in the short haul field.

Even for the common carrier trucker, the average length of route is but 88 miles with a shorter average haul. When the vehicle travels greater distances, it rapidly gets into highly specialized fields such as the movement of furniture and high-value goods.

In the main, the truck is simply the modern successor to the horse and wagon, used by its owners as a part of business equipment and engaged in the final distribution of commodities to the consumer.

Tool of Individual Transportation

As an interesting phase of ownership, it appears that 26 per cent of all trucks are owned by farmers, while 2,200,000 trucks are owned by as many individuals.

So while there are important exceptions in the form of large private fleets of petroleum, milk, food and other commodity hauling equipment, by and large, the truck is an instrument in individual freight transportation just as the passenger car is in the carriage of persons.

Up to the present, no complete analysis has been made of the commercial haulage of freight by trucks, but we know in a general way from statewide studies in some localities that: The chief field of the for-hire vehicle is in the haulage of high-value manufactured goods and of perishable products such as milk, vegetables and livestock for comparatively short distances.

The interstate tonnage movement is a small part of the total.

Whatever tonnage has been taken from the railroads is largely in the less-than-carload, short-distance haul,

which railroad witnesses appearing before congressional committees from time to time have said was an unprofitable phase of railroad operation.

The railroads have, as an offset to such loss of business as they have sustained in this area, two alternatives:

One, is the right to enter this field of operation (as many of them have) and through the use of their superior dispatching, soliciting and operating departments, to retrieve on the road such business as the truek has taken by dint of a type of service from door-to-door which the steam line cannot render as efficiently; and

Second, is an opportunity for the elimination of the costs incident to the short-haul business on the rails such as: Excessive use of equipment for a small fraction of the business; way-trains which serve to clutter up main-line operations; and heavy capital investments in expensive freight terminals which by use of the truck can be eliminated or curtailed.

On the basis of these facts, it would appear that if the rails have suffered —and they have—during the past few years, it was largely because business as a whole had suffered and because they had not taken full advantage of the opportunity the truck presented for reducing their costs.

2 WHO PAYS FOR THE HIGHWAYS?

One of the secondary fallacies encountered in a review of the transportation situation is a widespread popular opinion that motor vehicle owners operate over free highways.

There is no free highway in the United States today. Every road is a toll road. The only distinction between the past and the present is that motor vehicle owners have elected to pay tolls at filling stations instead of at toll-houses as in the past.

The man who says that vehicle owners are paying no taxes simply does not know what he is talking about or the truth is not in him.

Last year, prior to the enactment of the new Federal Revenue Law, motor vehicle owners were paying more than a billion dollars annually in gasoline, registration, personal property and a score of other taxes.

The Federal law added another $258,000,000 in discriminatory excise taxes to that burden.

In every state, motor taxes are not only high today but the trend is in the direction of further increases or toward diversion of a score of general purposes.

To these amounts, the truck operator is one of the heaviest contributors. While he represents about 12 per cent of the total number of vehicles, he pays 29 per cent of the special taxes and, in addition, he pays all the general taxes that anyone else pays in proportion to his land holdings or his earnings.

Detailed studies of truck operation over particular stretches of highway have shown that they pay at least their share, or more, of the costs of such roads.

But again the truck operator is faced with the figures of total highway costs and the fallacious conclusion is arrived at that he and other motor vehicle users ought to pay for the total cost of all roads even though there are literally millions of miles of highway which the truck owner as a class never operates over.

Pay for Roads They Use

Today, all motor vehicle owners are paying in special taxes alone amounts equivalent to the entire cost of construction and maintenance of roads which they use as well as the bond costs therefore.

Because of the great mileage of the road and because we are still in the primary stage of road development in the United States even though we have gone much farther than any other country, motor vehicle owners today could not pay the entire cost of all highways.

There is no reason in equity why they should, because roads would be essential if there were no motor vehicles.

The blunt fact which must be faced by those who urge that all roads should be paid for by motor users is this: If road funds were limited to vehicle taxes then the funds should be expended for the roads which they use.

In Michigan, a typical state, 84 per cent of all traffic moves over 9 per cent of the mileage. This means that largely, local road improvement would have to stop and to the extent that it did, rail operations would be affected because most of the traffic carried by railroads travels over highways either to or from the rail head.

The rural highway mileage of Michigan is classified as follows: State system 9 per cent, county highways 20 per cent, and township roads 71.

On a per mile basis of comparison, the state system carried 84 per cent of the vehicles; the county roads 14 per cent, and the township roads 2.

On a total vehicle mileage basis (vehicles per mile times number of miles in system) the state highways carry 65.7 per cent; county roads 24.4 per cent, and the township roads 9.9.

No man who knows that 40 per cent of the farms of the country do not yet have improved roads would want to argue long that the rural folk should not have them.

3 TRUCK USE OF THE HIGHWAY

Ten years ago, those who said that the truck was doing an undue amount of damage to the highways might have had a case.

But the art of truck construction has developed rapidly along with the older art of road improvement.

Today, virtually no motor trucks with solid tire equipment are being produced and the government has recommended that such vehicles be barred from the highways except by permit.

Pneumatic and balloon tires have so decreased the impacts of vehicles upon road surfaces that for reasonable loads, properly equipped, the damage has virtually disappeared.

To the extent that vehicles are not properly equipped or are loaded to the point where they do inflict undue damage, then they should be kept off the highways. Every state has adequate laws for the protection of life, limb and property on the highway. They should be enforced.

Equally, however, physical regulation should be uniform as between states. The man who obeys the law in his own state should not be penalized when he comes to a state boundary.

4 THE VEHICLE AS AN EVIDENCE OF WEALTH

Those who justify motor taxation on the ground that vehicle ownership is an evidence of wealth are not familiar with the facts.

No one would say that farmers are over-burdened with cash, yet they own more than five million of the twenty-six million trucks and cars in the country.

Two-thirds of all automobile owners have incomes of $3,000 or less and 86 per cent of all cars sold are priced at less than $750 wholesale.

Possession of a truck is evidence of a transportation job that needs to be done—not of wealth.

Since the truck is always an element in business costs, every tax which it must pay adds to the price paid by the ultimate consumer. This is even more true in the case of the common carrier whose business is drawn largely from the little fellow who cannot afford to buy fleets.

5 TAXES PENALIZE PRODUCTION

Whatever is done to increase the taxes on either trucks or automobiles is a penalty on production which, inevitably, strikes back at the masses who use these vehicles or whose products are carried in them.

Certainly each should pay his share of the costs of the facility but when that has been done, no taxation or regulation can be imposed to add to the cost of the movement without damage to society as a whole.

To say that such laws should be passed to equalize competition between different types of transportation is to say to the public that it should not have the use of the highways and vehicles which it has bought.

Moreover, the attempt can only react against other transport agencies, since in the long run progress cannot be denied. The rails must turn to those types of service which are most efficient, or they will lose the business.

Motorists Urged to Salute Trucks as Highway Equals

Each Group Will Get Fuller Value Out of Our Modern Highways by Recognizing the Rights of the Other

Says
HAROLD G. HOFFMAN
Commissioner of Motor Vehicles, New Jersey

IN the history of transportation commercial enterprise looms most largely. In our present automotive life I think the average motorist is inclined to overlook the fact that today, as always in the past, the movement of goods is at least of equal importance with the movement of individuals.

Indeed, it is only since the automobile has come into such tremendous use that the individual has been able to move about with such freedom and to place his own movement upon a basis of importance comparable, to himself at least, to the transportation of the various commodities that enter into commerce and trade.

I desire to emphasize that, regardless of the individual motorist's view, the commercial vehicle has a vital and indispensable place upon the highways. As a pleasure-seeking motorist myself I sometimes may be inclined to overlook this fact when a lumbering truck impedes my immediate passage, but as a Commissioner of Motor Vehicles of a great state I cannot do so.

And it is well that I cannot do so in my official capacity, for the commercial motor vehicle is doing a tremendous job in this country and doing it efficiently and faithfully. Its regulation is worthy of the most careful and sympathetic consideration not only on the part of officials, but also on the part of the man or woman who drives an automobile for comfort, convenience, or relaxation.

From every standpoint, including those prime questions of safety and efficiency, it is essential that these two groups understand each other.

The private driver must realize that the truck or bus operator is using the road to keep the wheels of commerce moving. He and others are earning a livelihood by this mode of quick and fluid transporation. It is unfair to ignore the fact that the commercial vehicle operator has paid substantially for the construction of the roads and for their maintenance as well. Indeed, it is statistically provable that the commercial operator's share has been relatively the greater of the two—and when one considers the heavy burden the private car owner is bearing, that statement is still more significant.

I do not wish to go into the matter of costs too deeply, but I think it only fair to point out that the National Automobile Chamber of Commerce has computed, after careful study, that while the commercial vehicle comprises only from 11 to 12 per cent of the total, its share of the tax burden is 26 per cent. The volume of special taxes against the commercial vehicle is about $290,000,000 as compared to $1,000,000,000 for the private vehicle. There are in this country about 4,000,000 trucks and buses and about 23,000,000 passenger cars.

I do not expect the average motor car owner to bear these comparative figures in mind, and I know human nature too well not to feel a definite sense of sympathy for him when the commercial operator indulges the undeniable disposition sometimes to make use of the greater bulk of his vehicle to "bull" his way through traffic, to crowd motorists off the road, and to "hog" the highway.

The result of the latter disposition has been a serious cleavage and one that has resulted in widespread highway inefficiency, by which I mean,

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ENGINE OIL MIRRORS

IF THE viscosity of oil in an engine crankcase changes following the draining and refilling period, it indicates that something is wrong either with the engine or the oil, or both. An oil of good quality and of the correct SAE viscosity number will completely lubricate an engine in good condition for many, many miles. Such an engine will have very little effect upon the viscosity of a suitable oil despite variations in speed and other operating conditions.

A decrease in viscosity indicates dilution and an increase in viscosity shows evaporation of the oil by heat. The decrease, or dilution, may be caused by any one of several faults of the engine while the increase may be due to quality of the oil itself or to engine conditions. Therefore, by measuring the viscosity of an oil in a crankcase at frequent intervals, faults in the engine and/or oil can be determined before serious trouble results.

Because certain changes in viscosity may be due either to the engine or the oil, we must consider each possibility separately. We shall assume two different conditions and discuss them in turn. The first, which forms the basis for this article, is that the oil is perfect (within practical limits) and does not change under normal operating conditions. It follows that by comparing the viscosity of this oil, at a given temperature, say 100° F., whenever a sample is drawn from the crankcase with the viscosity of the new oil at the same temperature, that the condition of the engine can be determined.

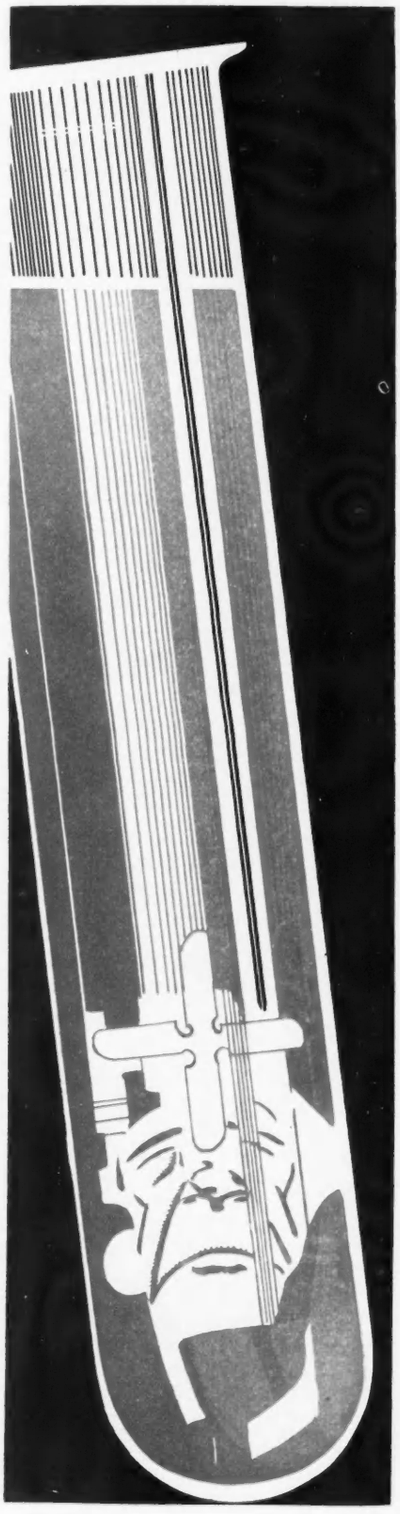
The second assumed condition is that the engine is perfect, within practical limits, and in this case any change in viscosity of the oil indicates the change is due to the oil. This condition will be discussed in a succeeding article.

The accompanying charts show how the change tells what is the matter, just as an engine thermometer registering "BOILING" reveals something wrong. In all of the charts, samples of oils were tested for viscosity at 100° F. at every drain period and these viscosities are shown as percentages of increase or decrease from the viscosity of the new oil at the same temperature. A curved line running above the dotted reference line marked "O" shows an increase in viscosity and a line running below the reference line shows a decrease in viscosity.

Chart 1 shows how little an engine in good condition changes the viscosity of a good oil. This engine was brand new when the test started and it was supplied throughout with an oil of known high quality and of the viscosity recommended by the manufacturer. Even at the end of 12,000 miles of operation the engine was making practically no change in the physical condition of the oil.

Call This Royal Flush, If You Can

- ♦ A —Any change in oil viscosity indicates that something is wrong.
- ♦ K —Faults in an engine or in an oil can be determined before serious trouble results by measuring viscosity.
- ♦ Q —A decrease in viscosity indicates dilution; an increase, evaporation of oil by heat.
- ♦ J —Choking of the carburetor in winter given as the cause of most dilution is an over-rated alibi for careless operation.
- ♦ 10—Crankcase dilution shows poor engine supervision.



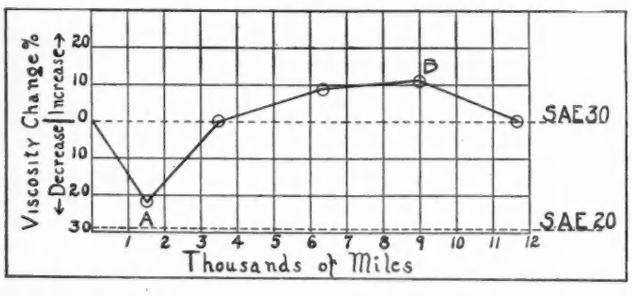
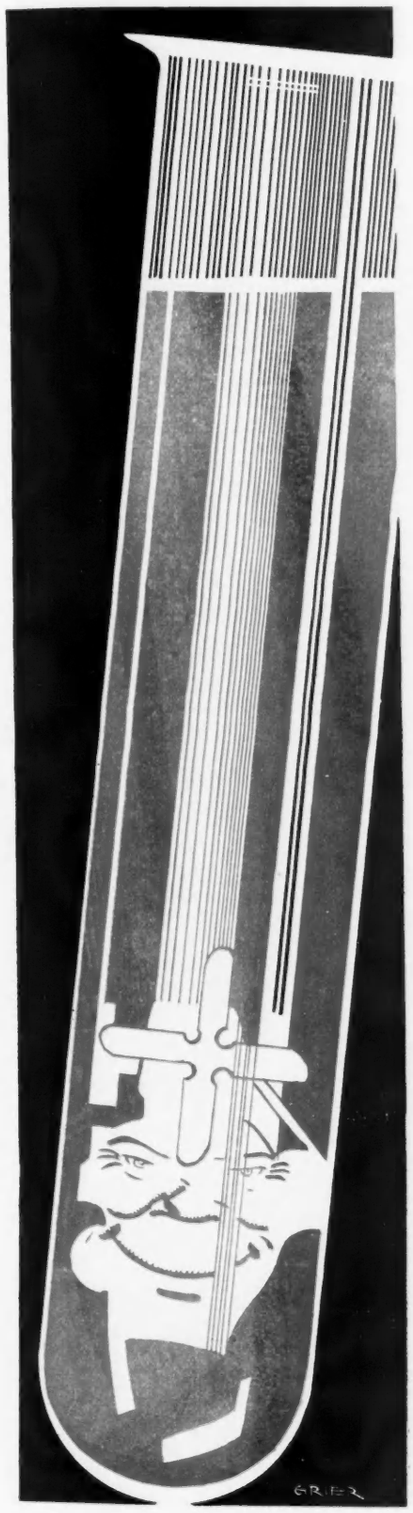


CHART 1

Curve showing viscosity of oil at crankcase draining periods in a new engine. The drop at A was due to rich mixture, the increase at B to overheating

A sample of oil taken from the crankcase drainings at 1,500 miles showed dilution of about 22 per cent, as at A. The engine was new and this could not be due to wear, therefore the carburetor adjustment was

ENGINE'S CONDITION



By SILAS I. ROYAL
Lubrication Engineer and Oil Chemist

Reads Oil for Efficiency

The author of this article evolved a plan for controlling the overall efficiency of engine lubrication during the course of more than eight years study and experience in truck service work, research and tests. The plan has been checked by fleet operations and factory branch experience.

This, the first of a series, shows how changes in crankcase oil can, and should, be used to check mechanical condition and adjustments of an engine.

The second will show what happens when an unsuitable oil is used in an engine in excellent condition.

Readers are invited to ask questions and to forward their comments to the editor.

checked and found too rich. This setting is not unusual on new engines during the running-in period. New oil was put in and at 3500 miles viscosity was right back at par. The next check when oil was drained again showed viscosity about 8 per cent above normal and the succeeding check gave a viscosity reading of 10 per cent too high as at B. Inspection of the engine revealed that the radiator was partly clogged from impure water and the fan belt was slipping, both conditions contributing to high engine operating temperature. The radiator was cleaned and soldered and the fan belt adjusted and viscosity then dropped back to normal. In each case the change in oil viscosity gave a clue to the trouble and prevented more serious conditions.

Log C in Chart 2 was taken from tests on a heavy duty truck. Previous to the test a much heavier oil than S.A.E. 30 was used. At the start of the test this oil was drained out and the crankcase filled with S.A.E. 30 oil. At the end of 1500 miles viscosity had decreased 25 per cent, as shown at point 1. The carburetor was adjusted and the air cleaner removed, cleaned and replaced.

There was very little change, or improvement, in the curve. Test at 3000 miles, indicated by point 2, showed viscosity reduced more than 30 per cent during 1500 miles operation on the batch of fresh oil. The engine timing was checked and new spark plugs installed but there was very little improvement, as is indicated at point 3 where viscosity was still 2 per cent below normal. This continued dilution called for corrective measures and new piston rings were installed along with a carbon and valve job. Even this did not cure the trouble as the viscosity was off 17 per cent at 6000 miles, shown at point 4. The cylinder block was rebored and this ended the dilution. Note that viscosity went to 10 per cent above normal in the next 1000 miles at 7000 miles. The first point together with an excessive consumption of oil indicated that the engine was "shot" from use of too heavy oil previously and that dilution could not be prevented by engine adjustments alone.

Log D in Chart 2 shows the results of excessively high engine temperature. The engine thermometer indicated this temperature and the oil pressure would drop considerably when the engine was running at high speed or up hill. Viscosity was 30 per cent above normal at 1500 miles as shown in point 1. The radiator was cleaned and the fan adjusted with little result. At point 2, the engine was thoroughly inspected for any cause for high engine temperature, but nothing was found. At point 3, viscosity was still away above normal and a cylinder head was removed for a carbon job. The mechanic found a water hole in the cylinder head gasket had not been punched out and this

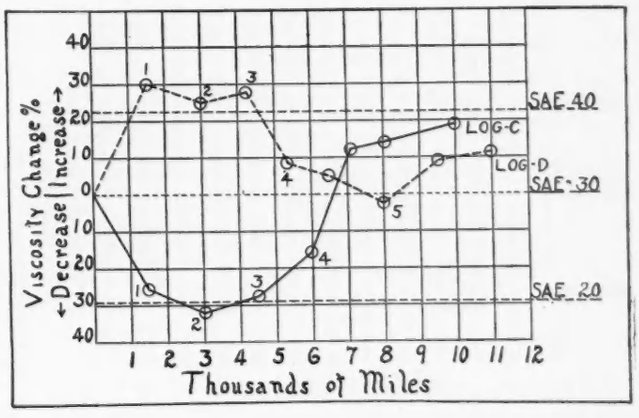


CHART 2

Log C shows dilution due to worn engine, which was rebored at point 4. Log D indicates overheating which was caused by blocked cylinder head gasket

decreased water circulation around the cylinders. This is a condition which could not be discovered in any ordinary inspection but the oil viscosity continued to warn the operator that something was wrong.

New spark plugs were installed at point 4, with viscosity a little above normal but these plugs were not efficient and the viscosity dropped just below normal at point 5. Another set of spark plugs was installed at this point and they stopped the drop in viscosity which ran from 10 to 20 per cent above normal in the period from 7000 miles to 10,000 miles.

Log A in Table 3 illustrates a bad case of dilution which resulted in two connecting rods burning out in succession after which a whole new set of rod bearings was installed. All the trouble and cost of repairs to this engine could have been avoided by a simple carburetor adjustment, the need for which was plainly shown by viscosity tests.

Oil of S.A.E. 40 grade was used throughout this experience and it was drained and refilled with fresh oil approximately every thousand miles. The chart shows that oil was wasted. In fact, only about 25 per cent of the lubricating properties of the oil could be used. It should have been drained, under the conditions shown, every 500 miles instead of 1000 miles and the oil no doubt would have lubricated for 2000 miles if the engine had been in good mechanical condition.

But the engine was not in good adjustment. At point 1 the first draining on the lower (solid) line dilution had reduced viscosity more than one-half. If the carburetor had been adjusted this time the later trouble would not have happened. New oil was put in the engine but there was another warning at point 2 when a second rod bearing was required. Nothing was done to the engine and the dilution continued, reducing viscosity no less than 60 per cent when measured at draining at 4000 miles, almost 60 per cent at 5000 miles and 55 per cent at 6000 miles. Here was another jolt because all new rod bearings were required. At last the carburetor was adjusted. Notice that the viscosity ran up to point 4 at 7000 miles. The carburetor was adjusted a little finer and viscosity went up to almost normal as shown at point 5. There was, however, some dilution and new spark plugs were installed at this point. As a result, viscosity in the next test was 15 per cent above normal when tested at 10,000 miles.

A Hot Engine

A case of viscosity increase is indicated in the upper curve, Log B in Chart 3. This was the same quality and grade of oil as that used in the test shown in Log A. Viscosity jumped to 43 per cent above normal at point 6, showing that the engine was running too hot. The radiator was dirty and leaking and it was cleaned and soldered and oil changed. At point 7. viscosity was lower but still too high and the fan belt was adjusted. Viscosity dropped again, as shown at point 8, but was still above normal and a new fan belt was installed. The viscosity dropped just below normal when oil was changed at 5000 miles and to about 8 per cent below normal at point 9, the next drain period. New spark plugs were installed at this time because the viscosity indicated some dilution. Viscosity then ran up to 47 per cent above normal, as shown at point 10. The engine was completely inspected and no defects discovered that would cause excess engine heat. At first, it was decided that a bad batch of oil had been received and the high viscosity was blamed on the oil. Further inspection revealed that the new fan belt installed was slipping at certain engine speeds. Another fan belt was installed and properly adjusted and the viscosity came down to normal.

In all of these cases, the change in viscosity, not the absolute viscosity figure, indicated something wrong with engine adjustments or condition. The curves proved, too, that good oil can be ruined by improper engine adjustments and the oil in turn will then produce still more engine trouble.

Crankcase dilution shows poor engine supervision and obviously should be avoided at all times if low cost operation is desired.

The general belief that choking of the carburetor in winter is the cause of most dilution is a very much overrated alibi for careless operation. Crankcase dilution is caused by gasoline passing the rings at a higher rate than it can be dispelled by evaporation. Tests on engines operating at slow speed in cold weather and stopping at frequent intervals showed absolutely no dilution. On the other hand, test on a fleet of 7½-ton trucks operating between Camden, N. J., and New York City pulling trailers at high speed in the hottest weather showed considerable crankcase dilution, which was stopped by proper carburetion. We have found crankcase dilution in engines operating at high speed for long times using extremely heavy oils.

Both the conditions that tend to produce crankcase dilution and those that produce excessive engine heat can exist at the same time. A clogged radiator may be causing the engine to run too hot and a carburetor adjusted too rich may cause dilution. If the unburned fuel passing the pistons exceeds the amount of gasoline and light oil ends evaporating from the crankcase then there will be dilution, shown below the line in the chart. If the engine is hot enough to evaporate the excess gasoline passing by the rings the viscosity of the oil may increase. If dilution exceeds evaporation it will show on a curve and the conditions which cause the dilution can be remedied. During the next period, high engine temperature will show on the curve and this condition can be corrected following the next viscosity test. probably at the drain period. Possibly dilution and high temperature can balance and give an even viscosity curve but the check on this condition is an excessive consumption of oil which shows an engine to be in poor condition.

Excessively high engine temperature causes evaporation of the oil and also thins out the oil because oil viscosity decreases as temperature increases. Excessive heat produces sludge and free carbon and this sludge causes engine wear.

Both crankcase dilution and high engine temperature are easily avoided. If the proper grade of oil, of the proper viscosity, is used and dilution or high temperature occurs, conditions are due to improper adjustments or the condition of the engine. The oil can be used to detect these conditions and to serve as a guide for their correction, but oil, in such cases, should not be blamed for engine troubles or repairs.

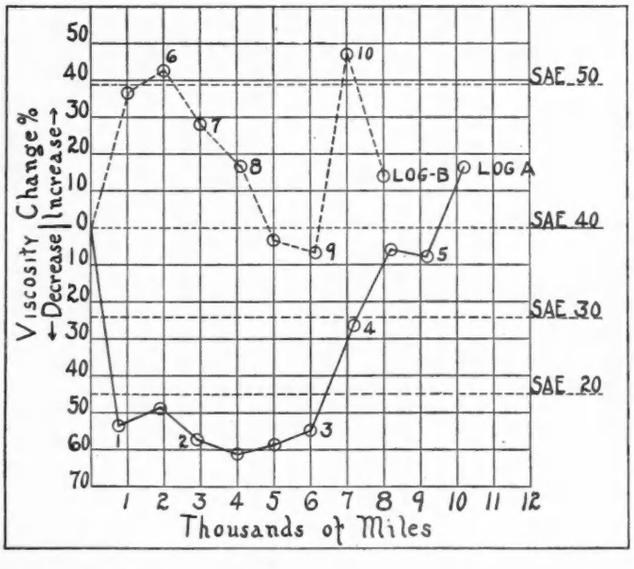


CHART 3

In Log A excessive dilution at point 1 was not corrected and new connecting rod bearings were needed, one at point 1, another at point 2 and all at point 3. Log B shows increase in viscosity from heat caused by clogged and leaking radiator and slipping fan belt. The drop at point 9 was due to poor spark plugs

Our Own Ear to the Ground Department

A Truck of Noble Lineage

This may be old stuff by the time you read it, but it's still inside dope at the moment of writing. Rockne Motors Corp. (a subsidiary of Studebaker company) will enter the commerical vehicle field with a half-ton panel delivery. The body is designed by Count Sahknoffsky, internationally famous designer of custom-built automobiles and women's clothes.

Frail Looking, But—

An engineer has set himself the task of designing a door-to-door vehicle weighing about half as much as conventional designs. He believes that frequent stopping and starting put a high premium on light weight. Airplanes show what can be accomplished if necessary. The new design will not follow aircraft engineering but will be something new in motor vehicle construction.

Headless Engines

Test runs of 75,000 to 100,000 miles or better without a carbon and valve job accomplished by heavy duty engines with alloy valves and valve seat inserts have set several engineers to thinking about making engines without removable cylinder heads, a type of construction almost universal years ago. The thought is that if the valves will stand up long enough there is no need for getting at them except at the time of a general overhaul. They foresee difficulties but it may be worthwhile to overcome them.

Let's Get It Straight

In the November issue this department said that Gramm was offering Cummins Diesels for replacement in trucks and buses now on the road. Cummins Sales Manager A. E. LeBlanc wrote: "'tain't so." So-o-o-o we asked Gramm Vice-President Willard J. Gramm and he wired this: "When first negotiated with Cummins understood engines for replacement available and so advised prospects stop since then Cummins advises no engines available this purpose until production has supplied new vehicle requirements stop therefore we cannot supply for replacement now but expect to specialize in this as quickly as Cummins will allow."

Bigger and Better

There is hardly an important truck manufacturer who isn't going to have something new in the next sixty days. And that no doubt includes Chevrolet whose passenger car preannouncement campaign is already under way. We look for more power from Chevvy as well as a number of other companies.

No Board for Rumors

If ten percent of all the "reports" about truck companies were to turn out to be true there certainly are going to be more startling developments next year than you can shake a gear shift lever at. New merchandising programs; new alignment of companies; expanded lines; newcomers to the field; important mechanical developments; mergers; manufacturing cooperation and design assistance between companies; etc., etc.

Ford Makes and Breaks Six

Ford rumors are as numerous as children's Christmas present wishes but an ear which remains on the ground near the center of activity in Dearborn, Mich., reports these rumblings:

The Ford six-cylinder engine has been abandoned after several hundred were built. In its place a V-8 engine, smaller than the present eight is being developed. This engine will appear in the present chassis or a chassis of about the same size. The V-8 engine now in use will power a new chassis carrying larger bodies.

The illness of Mr. Henry Ford has suspended all development work and the new cars will be announced at a later date than at first intended.

What is an Independent?

Perhaps the most interesting one is the one about "merging" a lot of independent companies in such a way that they will all be independent but will all build and sell more or less the same kind of trucks. One report has it that a big parts company is behind the move.

Accessibility and Low Height

Front-wheel drive may have passed out in the passenger car field as a design trend, but the reverse is certainly true in the truck field. Mr. Frank Fageol's Twin Coach front drive door-to-door delivery makes two, which as Dave Beecroft. now of the Bendix Corp., used to say is a trend.

A Smaller Diesel Coming

A diesel engine hs been designed in America for light-duty trucks of 1 to 2½-ton capacity. The engine is a light, high-speed type of four and six cylinders. The six-cylinder job delivers 100 hp. at 2500 r.p.m. This job may be run in the Indianapolis automobile race next year. If you're interested drop us a line and we'll put you in touch with the designer.—A.F.D.

THE OVERLOAD

(Courtesy Joseph Katz Co., and "Arrow Special.")

This Is News

There is one legislator, at least, on whose support the truck industry can count. He is State Senator Ward of the Free State of Maryland. Senator Ward is a Brockway dealer.

An Exchange of Messages

"George T. Hook, Editor, Commercial Car Journal, Philadelphia: Congratulations you old potato stop just heard that somebody reads your stuff. Bill Wilson." (National Carbon Co.)

"Mr. Bill 'Happy Warrior' Wilson, National Carbon Co., New York City: Your wire brought amazing news. Can only regard it as tangible indication that corner has at last been turned and country is on the mend. George T. Hook."

A Freak of Nature

Mentioning carbon reminds us that out in the State of Washington they are getting a refrigerant from a spring frequented by an Indian tribe. From the spring escapes carbon dioxide gas 99.6 per cent pure (Ivory's only rival) which is being turned into a solid and used to refrigerate ice cream delivery trucks. The processing company labels it "Gas-Ice." One fleet of more than 200 vehicles is operating on the natural gas.

Biographical Froth

Paul Kleiber, president of the Kleiber Motor Co., San Francisco, Calif., is a licensed brewmaster. Across the street from his truck plant is a brewery in which he has an interest.

Yowsuh! So 'Elpus

And thinking of beer reminds us that on the Blue Ribbon Malt radio program, Ben Bernie said: "What this country needs is a good cigar and all you can eat for five cents."

A Trade for the Book

You can figure out your own comment on this one: The McAllister Coal Co., of Camden, N. J., traded in three trucks and a Rolls Royce touring car on four new trucks.

An Ambitious Engine

We heard a case of excessive oil consumption the other day that is the height of something or other. The truck is registered in Pennsylvania. It makes a 100-mile round trip run daily and uses three gallons of crankcase oil. We said gallons, not quarts. We'd say the gasoline engine is trying hard to be a Diesel.

So-o-o-o-o-o-o-o!

Speaking of oil recalls the depression gag pulled by Ed Wynn on the Texaco radio program: "My uncle was recovering from sickness, and the doctor said he had to have absolute quiet and rest—so-o-o-o I set him up in business."

Believe It or Not Risley

Valves which seat properly never need grinding. A valve and its heat in the engine are comparative strangers. Tests show that some valves seat once in 10 times, and that even a well-behaved valve contacts the seat only once out of three times. A valve, purposely bent in the stem by hitting on the edge of the head with a hammer, straightened itself during several hundred miles of high-speed operation. This is due to the fact that operating temperatures of valves have increased 500 deg. in the past few years and now reach 1800 deg., which is white hot.—"Cap" Risley (Shaler Rislone) past-president, Philadelphia Automotive Service Association.

A Friend of Golf

Robert M. Cutting, president of the Robert M. Cutting Co., manufacturer of Chicago trucks, who died recently, was to have been president of the United States Golf Association in 1933. He was nominated for the presidency a week before he died. The nomination is equivalent to election.

Old Black Joe

Joe Geschelin, who represented Commercial Car Journal on the Cummins Diesel transcontinental trip, kept awake long enough in Los Angeles to write that he hadn't had any sleep during the 91 hrs. of travel across the country. "No sleep, no wash, no change, no shave," he wrote. "Was almost pulled in as a hobo."

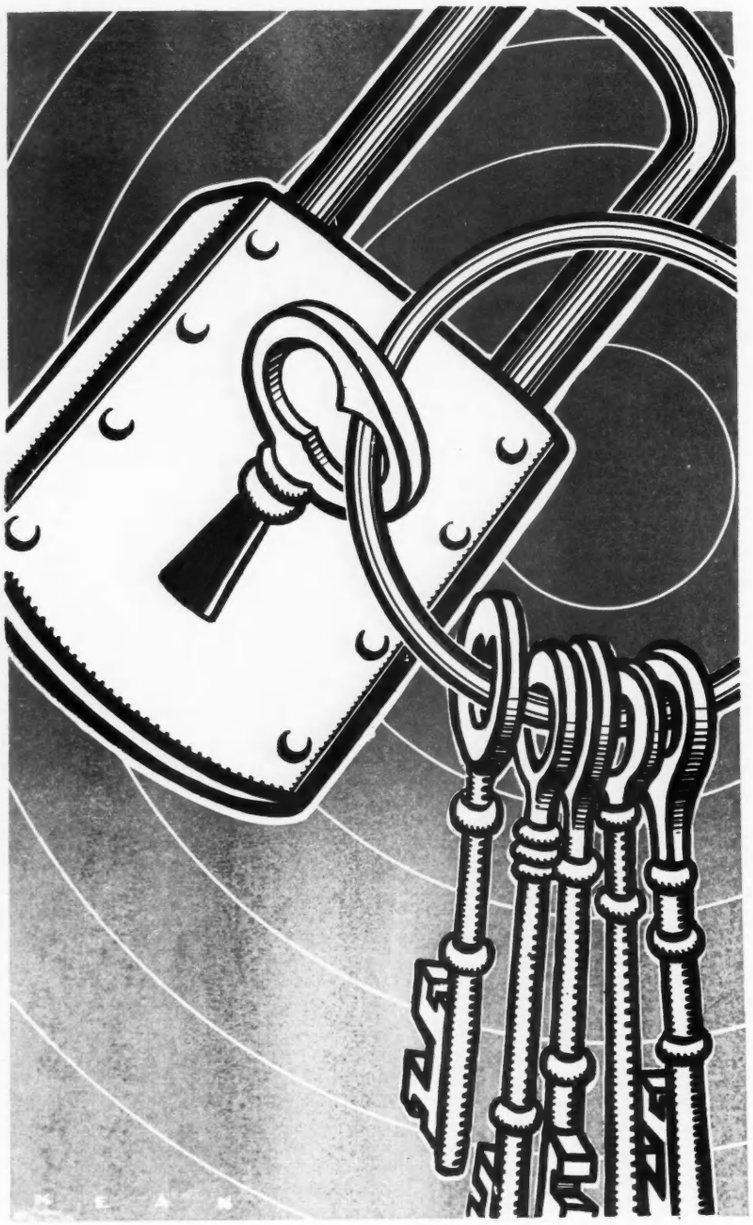
Prepare to Learn Something

Joe could have said "tramp" or "bum" but in using the term "hobo" he exercised the excellent distinction that is recognized by the Associated Hoboes of the World. These are the association's definitions: A hobo is a migratory worker. A tramp is a migratory non-worker, and a bum is a non-migratory non-worker.

An Appeal for Neatness

As a protection against British bandits, British truck drivers are being asked to buy the Moseley (adv.) rubber truncheon —policeman's club to you. The advertising slogan is: "Moseley rubber truncheon lays a man out without mess."—G. T. H.

Rating Formulas Are Keys to Sound Selling and Buying



Characteristics of a Truck for a Given Job Can Now Be Determined in Advance By Simple Calculations

By James W. Cottrell

THE performance factor, one of the four terms in the proposed S.A.E. method of rating trucks, has been revised slightly but it is still a "numerical index of performance convertible into terms of relative grade and speed ability." The index may be converted into speed and grade terms by supplementary formula or by referring to a table included in this article.

Actually the performance factor combines three factors, grade ability, road resistance and speed. For purposes of calculation a constant of 1.5 is assumed for road resistance and the two variables are grade and speed. As given in the preliminary report, the performance factor was equal to four times the piston displacement times the engine speed, in revolutions per minute, divided by the gross vehicle weight. This formula was based upon the assumption that the torque of an engine at governed, or recommended maximum, speed was equal to the maximum torque as determined by multiplying piston displacement by the factor .625. Actually torque at maximum speed is less than maximum torque and the percentage is of the order of 83. Therefore, the performance factor becomes:

$$PF = \frac{3.34\ D \times RPM}{GVW} \quad \text{or}$$

$$PF = MPH \times (G + 100 \times RF)$$

Two simple formulas are used to figure either speed in miles per hour or grade from a given performance factor. The first is for speed and it reads:

$$MPH = \frac{PF}{G + 1.5}$$

The second is used to determine grade. It is a transposition of terms into:

$$G = \frac{PF}{MPH} - 1.5$$

Although speed and hill climbing are interchangeable mathematically, in practice they are interchangeable only through the range of gear ratios available. Calculations can be checked by factory specifications to figure actual performance.

In the following formulas abbreviations and symbols are used for simplicity and these are defined as follows:

GVW = Gross vehicle weight to nearest 100 lb. This weight includes chassis, body and payload and is measured at the tires on the ground.

GTW = Gross train weight in pounds. This weight inincludes chassis, body and payload of truck or tractor and trailers, measured at the tires on the ground.

D = Cubic inch displacement of engine.

T = Engine torque, in pounds-feet, available for vehicle propulsion. A recommended basis for purposes of comparison is 0.625 lb.-ft. torque per cubic inch dis-

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The Rebirth of an Old Truck Vocation: Brewing

Beer and Adoption of Modern Transportation Will Mean Millions of Dollars to Truck Industry

By George T. Hook

AN industry, which was an eight-billion-dollar industry before the coming of prohibition, is about to be rechristened by the Congress of the United States. It is the brewing industry, and its rebirth as a truck vocation will mean millions of dollars to the truck industry. (An estimate of just how many millions will be made later on.)

Back in the days before war-time prohibition was invoked in 1918 to help win the war and make the world safe for democracy, the motor truck had just gained a foothold among brewers. Most brewers seemed to feel that the free advertising given them by the old temperance hymn, "The Brewers' Big Hosses," ought to be clung to. In metropolitan centers the electric truck had what you might call a vogue beginning as far back as 1911. And the gasoline truck was just beginning to sell itself in earnest when the prohibition amendment muscled its way into the Constitution.

Of course, even with prohibition in force the brewing vocation was not entirely lost to the motor truck industry. The handful of brewers in various parts of the country—some 200 odd in number, it is estimated—who swallowed their pride and turned to the brewing of non-alcoholic malt beverages, discarded their percherons and rumbling wagons and adopted gasoline trucks, both to increase their radius of distribution and to speed up deliveries.

So that, on the eve of the rebirth of real beer, the existing breweries form the nucleus of a truck vocation that has interesting possibilities. No matter how many trucks and trailers are sold in 1933 to the existing breweries and the breweries that will spring up with modification of the Volstead Act, every sale must be considered an unexpected windfall and an aid to industrial recovery. When an eight-billion-dollar industry swings into action, the motor truck, as an indispensible tool of that industry, stands to benefit mightily.

That the brewing industry will swing into action in 1933 seems to be a foregone conclusion. The opening days of the lame-duck session of Congress gave many indications that beer will be legalized to furnish necessary revenue to balance the Federal budget. The Garner repeal amendment failed to pass the House of Representatives, but it would not have offered immediate prohibition relief anyway. This can only be accomplished by some measure modifying the Volstead Act. Since the House repeal amendment fell only six votes short of receiving the necessary two-thirds, it is practically certain that a modification measure, requiring only a majority, will pass when it is brought to a vote.

While the House repeal amendment failed to pass, Congress has not entirely given up the idea of putting through a repealer during the short session. The Senate, at the moment of writing, is (to use a good brewing term) in a state of active fermenta-

tion. Repeal and modification bills are being discussed. They present an intricate problem because the final proposals must satisfy those who are against the return of the old-time saloon and those who are in favor of protecting States that wish to remain "dry."

Moreover the proposals must determine upon the form of distribution. And the form of distribution that is sanctioned will, of course, have an influence upon the types of bodies which the truck industry makes available to brewers.

News dispatches from Washington quote Representative O'Connor, who was co-author of the O'Connor-Hull "wet" bill rejected by the House at its last session, as saying "there is a big fight going on behind the scenes between the brewers and members of Congress on how beer is to be distributed." Details of the fight are not available.

The truck industry, naturally, is interested both in who shall be permitted to distribute beer to the public and in what form of container shall beer be distributed. These questions bear a direct relation to one another. At the moment it is not to be disputed that a very large volume of beer will reach the public in bottled form. Consequently, the industry will have available for the brewing vocation the existing types of bottlers' bodies. If distribution is permitted in barrels (and the Associated Cooperage Industries are campaigning for barrels and declaring their use will provide their industries with a revenue of 20 millions of dollars a year) then the body designers must produce bodies to meet rather exacting requirements. Full kegs, halves and quarters can not be tossed about like down pillows. The first requirement, then, is to make handling easy. For this reason, the low-bed type of chassis may be seriously considered as the basis for a vocationalized unit.

Regardless of whether Congress sanctions bottle distribution only or bottle and barrel distribution, there is no doubt that the pre-war methods of trasporting beer from breweries to remote bottling plants and distributors' refrigerated warehouses will be entirely changed to conform with modern transportation methods. These same modern methods will considerably increase radii of distribution.

One can visualize, for instance, that beer from Milwaukee and St. Louis, intended for consumption 300 miles away, might be toted on refrigerated tank trucks and tank trailers and bottled and barrelled at destination. This modern procedure alone would increase the profitable radius of outside distribution. In the old days the radius was greatly restricted because kegs and bottles were the only containers available and they represented an extravagant loss in dead weight. Tanks should make much more efficient carriers because their ratio of dead weight to payload weight represents a greater economy. You can satisfy yourself on this score by taking a 2400-gal. glass-coated truck tank. The tank weighs 4800 lb. Twenty-four hundred gallons of beer are the equivalent of 72 barrels of beer, figuring 31½ gal. to a barrel. A barrel full of beer, as a unit, weighs 355 lb. A gallon of beer weighs approximately 8 lb., thus a kegful of 31½ gal. would weigh 252 lb. Subtracting this from 355 lb., the weight of the unit, leaves 103 lb. of dead weight for the barrel alone. Multiply this by 72 kegs (empty) and you have 7416 lb. of dead-keg weight alone. Compare this with the 4800 lb. of tank weight and the difference of 2600 lb. represents an increase in payload in favor of the tank of 325 gal. or 10 full barrels of beer. If you want to figure the saving in dollars and cents, it is $380, based on the bootleg price of $19 per half-keg.

All this is purely speculative, of course, and is intended simply to indicate that the truck industry must be prepared to meet and to anticipate the demands of the brewing business.

According to statements made by representatives of brewers at the Washington hearings of the House Ways and Means Committee, the brewing industry is prepared to make an immediate capital outlay of about $360,000,000. Speaking for the United States Brewers' Association, R. A. Huber, vice-president of Anheuser-Busch of St. Louis, declared the industry would expend $15,000,000 for motor trucks. It is assumed, of course, that Mr. Huber spoke for the industry as it is at present constituted. It is estimated that there are now some 200 odd breweries in operation. Hence their average expenditure for motor truck equipment would be $75,000. But the truck industry in estimating the potential business which should result when a beer bill is passed must consider the increase in breweries which will inevitably occur. Such an estimate will be made by COMMERCIAL CAR JOURNAL and published in the next issue.

The estimate made by Mr. Huber is by no means fantastic if applied solely to the existing brewers. Expressions coming from brewers all over the country confirm his opinion.

Seven breweries in St. Louis stated they were planning to spend $10,000,000 for plants, equipment and supplies. Granting trucks 4.2 per cent of this amount (as Mr. Huber did for the entire brewing industry), means that the seven St. Louis breweries will invest $420,000 in motor trucks.

R. J. Schaefer, president of the F. & M. Schaefer Brewing Co., Brooklyn, N. Y., said his company would lay out a million dollars the first year. That would mean $42,000 for trucks, on an average.

The Pabst Brewing Co., Milwaukee, which has continued in the business throughout the prohibition period, proposes to spend an additional $25,000 for trucks.

Col. Jacob Ruppert, whose beer output in the "good old days" ran as high as 65,000,000 barrels, has said that he would spend about four and one-half millions for machinery, equipment and supplies. On a 4.2 per cent basis, that would mean $190,000 for trucks.

And an indication of the amount that may be invested by new breweries that will spring up, there is the statement of John d'Agostino, Philadelphia wine tonic manufacturer. In announcing the purchase and rehabilitation of an old Philadelphia brewery he said he expected to buy a fleet of about 30 motor trucks at an estimated cost of about $250,000.

All of these statements together with the certainty that beer will be legalized in time to make it a potent producer of revenue to assist a very unbalanced Federal budget and that full repeal of the Eighteenth Amendment sometime in 1933 is almost as certain, emphasize the importance of the impending change to the motor truck industry. They offer evidence that a potentially large truck vocation is seething to go at the drop of the bottle. The truck industry must be ready to help them go.

The evidence is likewise there that brewers are at this very moment live truck prospects. As such they will be receptive to the story of any truck salesman. And particularly will they welcome a salesman whose factory has apprised him that it has designed or is designing a transportation unit tailored to fit the vocation.

These Men Want Jobs

Bass, A. B. (34), 1201 1st North St., Vicksburg, Miss. Experience covers many years, from both factory and retailing standpoints in truck and passenger car activities. Specially trained in sales promotion.

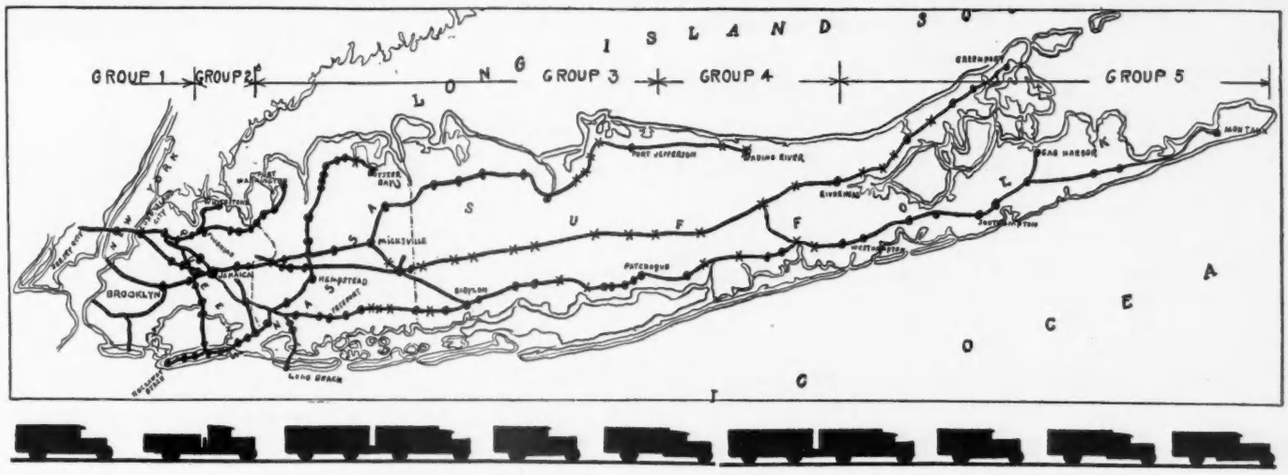
Jordan, W. I. (47), 2431 Central Ave., Indianapolis, Ind. Sixteen years experience, traveling nationally as direct factory sales engineer for the following concerns: Kelly Springfield Motor Truck Co., (7 years) supervisor of branches and distributors and sales to the United States, Mexican, Cuban and Central American governments; Selden Truck Corp. (3 years) sales to highways and U. S. Government Departments; Indiana Truck Corp. (6 years) sales to Government. Has knowledge of engineering practice, special equipment and trailers. Will go anywhere, available at once.

Rile, Wm. G., 5242 Akron St., Philadelphia. Employed for last 16 years by Relay Motor Truck Corp. (Garford Motor Truck Co.) as assistant treasurer in the New York and Philadelphia offices. Had charge of accounting, credit, collection and auditing. Also retail and wholesale selling experience. Available immediately, go anywhere.

Weidman, B. J. (40), 16527 Wark Ave., Detroit, Mich. Experienced in advertising, sales and service of passenger cars and truck organizations. Was assistant sales and advertising manager with Standard Motor Truck Co. Handled sales and production with the Grabowsky Power Wagon Co. Spent seven years with the Columbia Motors Co., serving in executive sales capacity. Represented Bohn Aluminum & Brass Corp. and other large national parts manufacturers for the last eight years. Has wide acquaintance among distributors and dealers. Would like connection in a sales representation capacity anywhere. Available immediately, references.

A-12. (48), Experience in merchandising trucks and establishing dealers throughout the United States. Twenty years' experience as follows: Brockway Motor Truck Co. (8 years), assistant sales manager, sales promotion manager, district manager in charge of dealer organization, Sanford Motor Truck Co. (10 years) sales manager and New England branch manager; White Company (2 years). Will go anywhere.

A-13 (36) Twenty years experience in the operation and maintenance of trucks as follows: eight years with general contractor operating 90 units; truck master during World War; three years service manager, Hurbert Motor Truck Co., N. Y.; six years in present position with a dairy company operating 76 units. Can analyze and intelligently present operating costs. Available on two weeks notice, will go anywhere.



The Long Island Railway system divided into five groups for rating purposes. Dots on the net-work indicate outlying points where collection and delivery service is offered. Stations marked "X" come under the new tariff but no store-door service is performed

RAILROAD PURSUES L.C.L. WITH COACH & STORE DOOR-DELIVERY

Long Island Road Offers What Is in Effect Express Service at Less-Carload Rates to Meet Competition

By R. E. PLIMPTON

OF INTEREST TO TRUCK MEN

This article first outlines the plan of this latest store-door delivery move of a rail carrier and then speculates as to the future of the scheme—its permanence and its possibilities of being adopted by other railroads.

ANOTHER important step has been taken to build up the trucking volume of Railway Express Agency, Inc., and incidentally or perhaps one should say primarily, to help one of its railroad owners regain freight from the highway trucks.

The rail factor is the Long Island Railroad. In its local freight tariff (I. C. C. 869) this carrier is offering what is substantially an express service, at below less-carload freight rates for the higher classes of merchandise. The same tariff provides for an optional collection and delivery on interline traffic, between Long Island points (exclusive of those in the western end of the island which are within the corporate limits of New York City) outside New York and those served by connecting rail carriers. This interline business is handled as less-carload traffic, on the regular Long Island freight trains. For either collection or delivery the extra charge is 5 cents a hundred pounds, with a minimum of 25 cents.

Passenger trains handle the merchandise freight, giving effect to a most unusual and significant feature of the new tariff, for movements between New York City and some 150 points scattered over the Island. Long Island Railroad bills of lading are used but the Express Agency does the work, picking up shipments in its route trucks, concentrating them on the proper passenger trains, and again making truck deliveries to business or residence destinations. This is a marked departure from the store-door schemes which so many railroads have adopted in the last two or three years, as an accessory to their less-carload service. It apparently is a recognition of what is admitted to be the general experience: that local freight trains cannot compete economically with the motor-freight operators, merely by the addition of terminal trucking.

To meet prevailing truck practices, the Island has been divided into five zones or groups. For all less-carload shipments (with few exceptions), a flat rate applies between the stations in a given group and those in any other group. The rates are applied as follows: 35 cents a 100 lb., between points named in Group 1 and those in Group 2 and between points in either of the first two groups and those in Group 3. From Group 1 to stations in Group 4 is 40 cents and to those in Group 5, 45 cents. To all these rates the 2-cent surcharge granted in March by the Interstate Commerce Commission must be added. The minimum is the charge per 100 lb. Certain oversize, dangerous or valuable shipments are not handled under the tariff. For C. O. D. service, the charge is 25 cents for amounts of $100 or less, plus 25 cents for each additional $100 or fraction over the first $100

As shown in the accompanying map of the rail routes on the Island, the stations where the collection and delivery service is given are assigned to groups for rate-making purposes, somewhat as follows:

GROUP 1. Manhattan (south of 126th St.), Brooklyn, Long Island City, and a few nearby stations.

GROUP 2. Flushing, Jamaica, Rockaway Beach and other outlying points, mostly within nine or ten miles from New York.

GROUP 3. Points in Nassau County, and including Port Jefferson, Medford and Patchogue in Suffolk County, from 15 to 60 miles out of New York.

GROUP 4. Riverhead, Westhampton, Center Moriches, other points in Suffolk County, to about a 75-mile limit.

GROUP 5. Eastern end of the Island, including Greenport and Sag Harbor, about 100 miles out. (Montauk, the most distant station, is 117.9 miles by rail from Pennsylvania Station, New York.)

The Long Island Railroad less-carload rates are still in effect, the third class at stations farthest out in each zone being about equal to the flat rate offered in the new tariff. Consider the situation with shipments between New York or Brooklyn and Riverhead, the latter an important retail and agricultural center. and at the eastern edge of the fourth group of stations. Class rates for the first four classes are 60, 51, 43 and 31 cents a hundred, with

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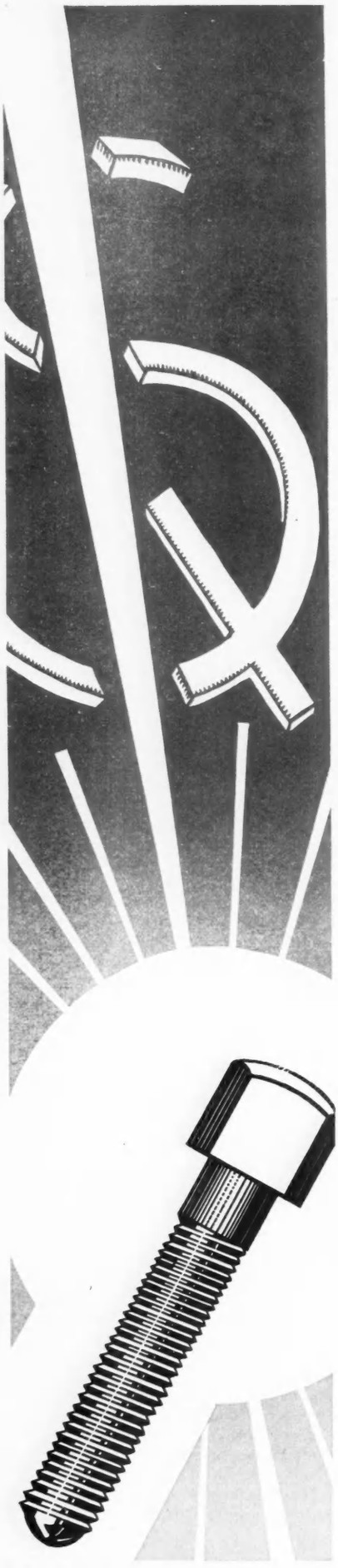


Cadmium Plating Small Parts Cuts Expense of Repair

Large Fleet Operator Saved $2,500 During a Period of 3½ Years by Spending $800 Rust Proofing Truck Parts

By F. C. Fiechter
Fleet Manager

EXPERIENCE covering more than three years has convinced us that rustproofing of exposed parts of motor trucks pays the fleet owner. We have invested altogether about $800 in plated parts including the usual stock on hand at present and we estimate that we have saved about $2500 on maintenance by use of plating.

Plating is needed wherever lubrication of exposed moving parts is not continuous and the elements can get in. We remove all small parts on the chassis such as clevises, clevis pins, bolts, nuts, plain washers, etc., when the vehicle is new and replace them with cadmium plated parts from our stock. The parts removed are sent to the plater and then to stock. On vehicles in use cadmium plated parts are used in routine maintenance. Parts included in the power-plant, transmission and rear axle are not included in the plating program.

Spring bolts are an example of parts which move and are exposed to the elements. It is difficult to maintain continuous lubrication on all the surface of a spring bolt and to exclude moisture. Before we took up plating we bought spring bolts almost every week. In a recent check of plated bolts we found almost no wear in 60,000 to 70,000 miles and we have replaced less than a half-dozen spring bolts in one group of 35 trucks in the past five years.

Cadmium plating costs from 3 cents to 7 cents per pound of metal plated. We put parts removed from a chassis through our shop cleaner and then send them to the plater. The actual cost of plating is not large; the weight of parts to be plated running from 50 to 150 lb. per chassis.

Before approving the cadmium plating program we experimented for more than a year. We found that the plating protected parts even though pressure and movement had worn the surface bright in one place. For example, a spring bolt would show a bright area surrounded by a darker plated area showing pressure and on one side of the bolt. But the bright surface did not rust.

Removing parts to replace them with cadmium plated parts obviously costs money but the savings in damage to parts by rust and the reduction in labor resulting from using parts which can be removed and replaced readily repays us for the extra cost. In fact, in our opinion, cadmium plating by the fleet operator absolutely is justified by results.

Manufacturers can rustproof parts which need the protection at a fraction of the cost to the owner. We have specified rustproofing on all parts which we would replace with plated parts on two new trucks.

Rustproofing enhances the value of a truck to a prospective purchaser and in the broad sense to the manufacturer. One make of truck gave some trouble with brakes until the manufacturer rustproofed certain parts which cured the trouble.

Without rustproofing the economical life of a chassis may be 30,000 miles instead of 100,000 miles which might be expected. And in these cases the owner blames the truck maker, not himself. The maker could protect his reputation by insuring long life from plating.

Another advantage of rustproofing for the truck manufacturer is that it protects his trucks in the hands of owners who neglect to lubricate and adjust their vehicles. Parts which are constantly lubricated do not require protection against rust, but careless owners do not maintain continuous lubrication, and their vehicles suffer more from the effects of water and exposure than vehicles maintained properly. If rustproofing pays those who keep their vehicles up to par all the time it will pay less careful operators still more.

Truck & Warehouse Are Strong Links in Modern Transport

They Are the Backbone of a Modern High-Speed System of Distribution That Benefits Rails, Waterways, Shippers

By G. Lloyd Wilson

This is the Eleventh Installment of a Series on Motor Carrier Problems

THE old, slow mass system of distribution is giving way—reluctantly, but surely—to a new, fast unit method of distribution that has far-reaching significance. How can the railroad, steamship carrier, motor freight carrier and merchandise warehousemen strengthen their position as essential links in the chain of distribution?

The purpose of this brief study is to examine some of the moves that have been made by those who have sensed the significance of the changes apparent in the present period of transition, and to suggest some additional moves that may be made in this strategy for better present and future position.

The merchandise warehouse has ceased to be merely a repository for merchandise in lots of various sizes for more or less indefinite periods and has become a vitalized focusing point to which large lots of freight are consigned by railroad, steamship or motor freight service by manufacturers, jobbers or retailers to be distributed over trade areas adjacent to the warehouses by motor freight services.

All parties gain by this arrangement. The manufacturer, jobber, wholesaler or other distributor gains through taking advantage of the relatively lower large-quantity freight rate from the original shipping point to the warehouse. Goods can and often are shipped in shipload, large load, carload or truck load lots at rates which are considerably lower than the small quantity rates by any of these means of transportation directly to the small lot distributors, retailers or consumers. The carriers gain through the use of each type of carrier in the service in which it is relatively most efficient—the steamship, railroad or heavy-duty motor trucks for long-distance large-lot transportation service, and the smaller automotive vehicles for local delivery or relatively short-haul highway transport services. The warehouses are given an opportunity to handle goods which otherwise might never have been handled at a warehouse at all but would have moved directly from the points of origin to the points of local distribution or consumption in relatively small lots at comparatively high small-lot transportation charges. Local distributors and consumers reap the advantages of lower over-all transportation costs from the point of origin to the local distribution or consuming centers.

Before turning to a few selected examples of the triple coordination of rail-warehouse-motor, steamship-warehouse-motor, or motor-warehouse-motor distribution, it should be pointed out that the distribution through merchandise warehouse is usually effected according to either one of two methods.

Under the first plan, usually referred to as "pool-car" distribution, large units of freight are consigned to warehouses located at strategic rate points in the center of areas of distribution via steamship, railroad or motor truck in shipload, car-load or large truck load lots. Upon arrival at the warehouses, the large lots of goods are received from the line-haul carriers, segregated into smaller consignments according to distribution directions furnished by the shippers, and forwarded by motor carriers in smaller lots to individuals in the trade areas served by the motor lines radiating out from the warehouse distribution center. The goods, in cases where the "pool-car" method of distribution is practiced, are never actually stored in the warehouses.

The warehouse company in such cases is compensated for acting as consignee for the solid-lot shipment as agent of the shipper; for sorting the goods into smaller consignments according to the orders of the shipper; for handling the goods from the vessels, freight cars or trucks which

have performed the long-haul movement to the tailboards of the trucks which perform the distribution movements; for the execution of the bills of lading for the truck-haul movements from the warehouse to destination; for checking and tallying the goods; for arranging for the payment of inbound and outbound transportation charges when required and for the accounting records necessary to the proper recording of the transactions.

The second plan of warehouse and transportation cooperation is usually called "spot stock" distribution. Large lots of freight are consigned by manufacturers, jobbers, or wholesale distributors to the warehouses by railroad, steamship or motor truck to be placed in storage awaiting orders from smaller lot buyers in the trade areas in which the warehouses are located. When these orders are received by the owners of the goods, instructions are given to the warehouse companies to withdraw the required quantities of goods from storage and prepare them for transportation by the motor freight carriers which serve the warehouses as radial lines.

This plan of operation affords manufacturers, wholesalers and jobbers the advantages of having distribution branches in every section of the country in which they do business so that the goods may be delivered in the desired quantities within a short time after the orders are placed. Orders for shipments can be made by telegraph or telephone and goods placed in the buyers' hands in a few hours, if the emergency is sufficiently acute to require "hair-trigger" service.

Additional large lot shipments may be made from time to time to replenish the depleted warehouse stocks. The warehouses in "spot-stock" distribution arrangements perform precisely the same functions as in "pool-car" distribution except that goods are stored for later distribution, and that warehouse companies are additionally compensated for storage.

A third plan of warehouse distribution combines elements of both the "pool-car" and "spot-stock" plans. Large lots are forwarded to the warehouses, and upon arrival part of the goods are immediately distributed by local transportation service to buyers in the trade areas, while the balance is stored for later distribution. Any of these plans can be modified or adapted to meet the needs of particular manufacturers, jobbers, wholesale distributors, retailers or consumers.

Plan of Distribution

One of the leading exponents of coordinated line-haul-warehouse and local motor distribution service is Tom Snyder, president of the Central Union Truck Terminal Co., Inc., and the Warehouse Distribution Corp. Headquarters of these organizations are maintained at Indianapolis. The system embraces 35 warehouses and motor truck terminals and motor lines serving 900 cities and towns in Indiana and adjacent states. The Central Union Truck Terminal acts as the receiving and distributing agent for a number of national manufacturers, the National Freight Co. and the Acme Fast Freight Co., the latter two important car consolidating and freight forwarding companies.

In this system several alternative plans of distribution are offered shippers. Large lots of goods may be sent to one warehouse at Indianapolis and distributed from this one central point to points as far as 160 miles away by terminal motor freight lines for further distribution. The shipper pays the carload rates to Indianapolis, the breaking-point, and the motor trucking rates from Indianapolis to the individual terminals of the smaller lots.

A scale of motor-trucking rates is provided from Indianapolis to the destination points in Indiana and adjacent states based upon 10-mile distance zones. Starting with Zone A there are 16 zones up to 160 miles.

Proportionately lower rates are made upon goods rated lower than first class in the Official Classification.

A second alternative plan offers large-lot shippers the privilege of consigning bulk shipments to four warehouse terminals (see Chart A). From these terminals all points in Indiana can be reached through the use of motor freight service with hauls never exceeding 70 miles. Ten mile zones with appropriate rates are laid out from each warehouse as a center, and the shipper having sufficient traffic to consign a carload lot to each of these warehouses can take advantage of the low large-lot rates to the warehouse centers and the shorter-distance motor freight rates from the warehouses to the final destinations.

A third and more elaborate plan of solid lot consignment and distribution embraces the use of eight carlot breaking terminals and distribution centers located at Indianapolis, East Chicago, Fort Wayne, Evansville, Richmond, Peru, Seymour and Terre Haute. All points in Indiana and some points in adjacent states can be reached from these warehouse centers by motor hauls of not more than 60 miles. A maximum of six 10-mile zones is laid out from each of these warehouse points as centers.

A fourth distribution plan makes it possible to distribute goods in the Indiana and adjacent states trade territory with motor truck road-hauls of not over 40 miles. A maximum of four 10-mile zones is laid out from each of seventeen warehouses and truck terminals (see Chart B).

All parties benefit from this arrangement. The shippers gain the advantage of low, line-haul, large-lot rates, lower motor truck distribution rates, faster service and economical storage and distribution. Railroad and other long-distance, large-lot transportation agencies are given an opportunity to transport the bulk shipments in large lots, a service in which they are relatively more efficient. The railroad freight cars are unloaded promptly, and they deal with the warehouse company as a single consignee, and not with a multitude of consignees as they would if the goods were transported all the way in small lots. The warehouses are put in the main stream of commerce rather than in the back-waters and made vital agencies in modern high-speed distribution. The motor carriers are given an opportunity to do their stuff in a field in which they can offer high-speed service and economical rates as the nerve-ends of this modern distribution system.

CHART A

CHART B

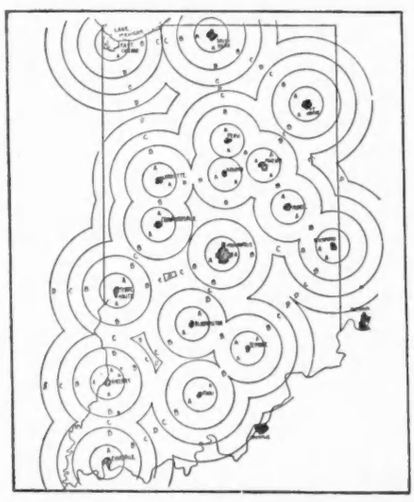


Chart A—Large-lot shippers are offered the privilege of consigning bulk shipments to four warehouse terminals, from any of which all points in Indiana are within 70 miles truck hauls

Chart B—A plan of distribution that makes any point in Indiana and in border trade areas of adjacent states accessible with truck hauls not over 40 miles. A maximum of four 4-mile zones is laid out for each of 17 terminals

AFTER HOURS

This Matter of Subsidy

◆ AFTER HEARING THE RAILROADS bellow so heartily and so often that motor trucks and motor buses are operating under governmental subsidy because they do not, as they inaccurately put it, pay their fair share of highway construction and maintenance costs, it is gratifying to have a legislator turn the guns of subsidy back on the railroads. Listen to the Hon. Charles Brand, Congressman from Ohio:

"While a good many people might contest the charge that the railroads since the beginning of this century have been receiving continued governmental subsidies, no one who studies the situation can deny that with every year the railroads are becoming an increasing burden to the public at large.

"Whether or not the loans granted to the railroads under the terms of the act creating the Reconstruction Finance Corporation can be considered subsidies will have to wait on the future for determination. Until all collectible loans are returned to the Treasury or until the Reconstruction Finance Corporation winds up its affairs and goes out of business, there will be question as to whether the moneys advanced are loans in fact or gifts. At least, when scrutiny is made of the reasons the railroads advanced in justification of the loans they have applied for, there is every reason to believe that, loans or not, the aid available to them is in the nature of governmental subsidy.

"In the case of highways, the subsidy, if it may be called such, is one which the people have voted themselves and one which involved an investment which will never pass from their hands."

Somebody's Still "Nuts"

◆ IF YOU WANT TO TEAR YOUR HAIR OUT WE suggest that you try to reconcile the rational statements of individual railroad executives with the irrational railroad propaganda that is being directed against motor trucks. While railroad propaganda bluntly blames trucks for the present financial plight of railroads and asks that they be so severely regulated and taxed as to make them non-competitive, what are we to think—what is the general public to think—when statements such as these are made:

L. F. Loree, president, Delaware & Hudson Railroad: "Less than 6 per cent of trucks are common carriers subject to rate regulation. This is so insignificant as to make any effort toward their control by rate regulation scarcely worth while."

Daniel Willard, president, Baltimore & Ohio Railroad, in annual report: "The chief (passenger travel) competition of the railroads is to be found in the 23,000,000 private automobiles owned and operated in the United States.

"Our freight earnings during the present year will be 52 per cent less than they were in 1929 and 48 per cent less than the average during the 10-year period preceding 1932. Although a part of the loss of freight is to be attributed to motor truck competition, the main cause is to be found in the unprecedented business decline. The loss to motor trucks was only about 10 per cent of the total volume of business."

And reconciliation is doubly difficult when you come across a statement such as the following, taken from a pamphlet published by the Pennsylvania Railroad "for the information of officers and employees":

"The elements of bus regulation should require that their fares, like those of railroads, be covered by public tariffs, and be just, reasonable and non-discriminatory; that the service be adequate and safe; that certificates of public convenience be required to start, extend, curtail or abandon operations; that proper accounts and reports be kept and made.

"It is not, under existing circumstances, believed practicable to attempt the application of similar measures to the operation of motor trucks. Passenger bus lines are nearly all common carriers, and hence as amenable to regulation as train service. Motor truck operations, on the other hand, are of at least four kinds, viz., privately owned and operated trucks, private carriers for hire, contract trucks and common carrier trucks. The last named contribute only a relatively small proportion of the total of truck operations, yet are the only form practicably capable of regulation as to rates, adequacy of service, accounting, etc., at this time."

An Idea for Truckmen

◆ A LETTER FROM CHARLES W. Haight, president, Quick Service Express Co., Inc., East Chicago, Ind.:

"Gentlemen: I am herewith attaching a snapshot (see above) taken showing the sign placed on the rear of my car; also my dad and myself.

"I believe that all truck operators should have a similar sign placed on their private cars to arouse the public interest. We must do something now and not keep waiting until tomorrow, for tomorrow never comes.

"If we are going to be caught sleeping, the railroads will walk away with the prize — the transportation business — for they will stop at nothing.—Yours for further Motor Success."

The Dawn of Diesels

◆ THE DIESEL ENGINE IS FINALLY gaining ground in this country. Six American manufacturers now offer 20 truck models powered by four and six-cylinder Cummins Diesels.

Indiana pioneered this movement. It was followed by Gramm, Gotfredson, Sterling, LeMoon and Kleiber. The trucks available with Diesels are rated from 3 tons to 18 tons. This range will be widened next year with the introduction of a light, high-speed Diesel intended for light-duty trucks.

The Cummins Diesel speed run across the United States, which is described on page 37, developed enough facts to make manufacturers and operators pay more attention to Diesel possibilities. When a gross weight of 10 tons can travel 3220 miles in 78 hours on 365 gal. of fuel oil costing $21.90, you have an example of economical operation that can not, must not and will not be overlooked.

When you bear in mind that the Diesel powerplant operated without a fan and without mishap through all sorts of climatic conditions, and when you learn from a California truck operator that on a 90-mile climb reaching to an elevation of 7000 ft., the Diesel-powered truck cuts four hours from the running time of the gasoline-engined truck, you have additional evidence that supports the Diesel idea.

So Get Busy!

◆ "YOU CAN'T SELL THE PUBLIC ON MORE taxes."

Al Smith told this to railroad representatives at a hearing of the National Transportation (Coolidge) Committee.

"We intend to sell them."

This reply was made by J. J. Pelley, president of the New York, New Haven & Hartford Railroad.

As between these two gentlemen, we'd rather believe Al, not only because our interests and sympathies lie with commercial highway operators but because if experience means anything Al Smith's years of public service should make him the better judge of the public mind.

It remains, therefore, for the truck interests to get before the 43 legislatures meeting in 1933 all the facts in support of Al Smith's opinion. If the public is shown that increased taxes on highway transportation must inevitably be borne by the public, then the intentions of Mr. Pelley and the short-sighted railroad group will meet with the resistance that Al predicts.—G. T. H.

N. Y. Police Dept.

Six Special Devices Promote Efficiency in Another Division of New York's Central Motor Repair Shop

SCREECHING sirens on bandit chasers and clanging of patrol wagon bells impress work of the police upon the public mind. Little thought is given to the business-like manner in which the work of a modern police department is conducted. Maintenance of police motor vehicles calls for a well-equipped shop which many fleet owners might envy. In addition to shop equipment this department uses many devices of its own design.

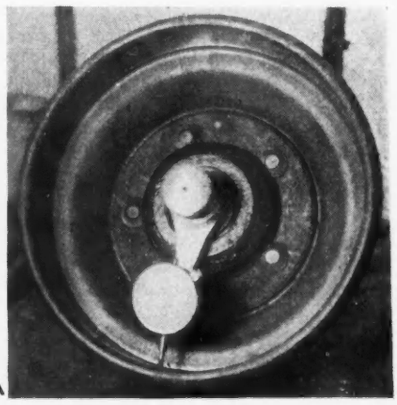
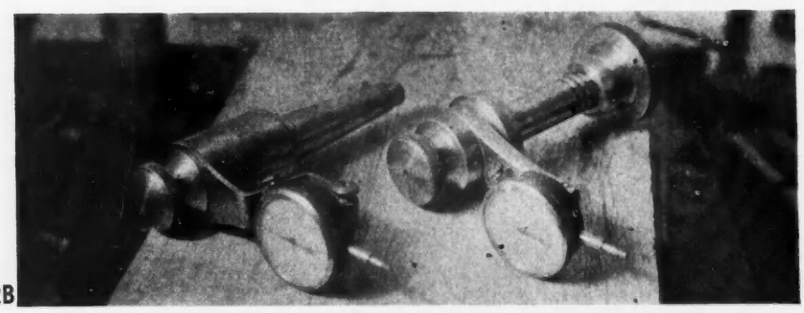

32A

Fig. 32—Brake Drum Gages for Fords

Both front and rear drums are checked by dial gage on every brake job going through the shop. Dial gages are standard instruments but the mountings are special shop designs. The rear drum mount (at left, 32B) is tapered to fit the hub and carries a revolving arm for the gage, the front mounting (at right, 32B) has a quick acting adjustable nut to support the mounting in the front wheel bearings. A dial is shown in use in illustration 32A.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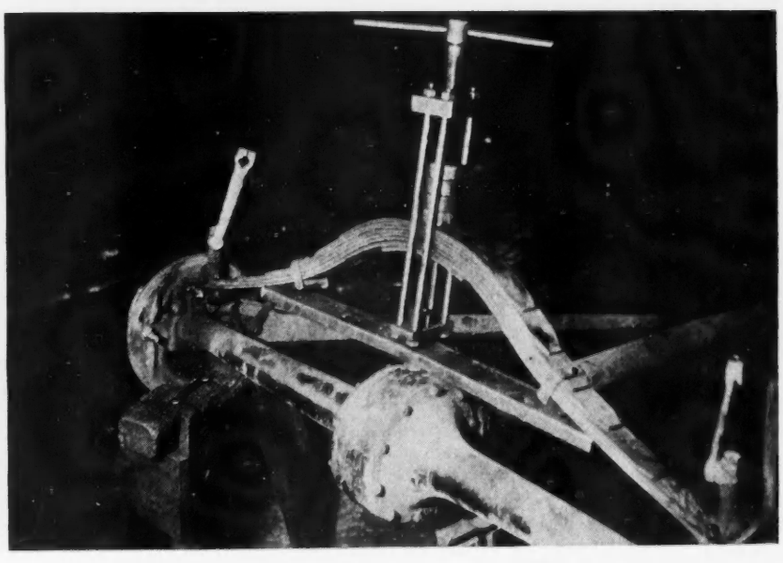
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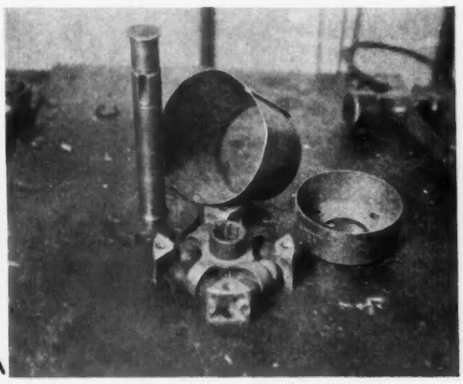
COLLARS SHOP WASTE

34A



34B

This is the fourth of a series about New York City's Central Motor Repair Shop, the fifth of which will appear in an early issue. Publication of the series was made possible through the cooperation of Edward P. Mulrooney, commissioner, Police Department; Albert Goldman, commissioner, Department of Plant and Structures and Dr. William Schroeder, chairman of the Sanitary Commission of the Department of Sanitation.

Fig. 33—Rear Spring Compressor

Removing or replacing rear springs on Ford Model A rear axles does not require calling out reserves in this shop. Pressure is applied to the spring to deflect, or restrain, the ends by a simple rugged depressor. It comprises a top and bottom plate connected by four corner rods. A long screw extending through the top supplies pressure. A long bar is placed through the bottom of the tool and its ends contact the under side of the rear spring.

Fig. 34—Universal Joint Assembler

Assembling a rubber-ball type of universal joint is a trick which none but sleight-of-hand artists could enjoy. The parts shown in 34B must be assembled under tension around the shaft. The problem was solved by making a sheet metal cup and funnel. Parts are placed at the top of the funnel and forced down into position as at 34A, wedging action of the funnel providing the necessary pressure.

Fig. 35—Tool Sharpening Jig

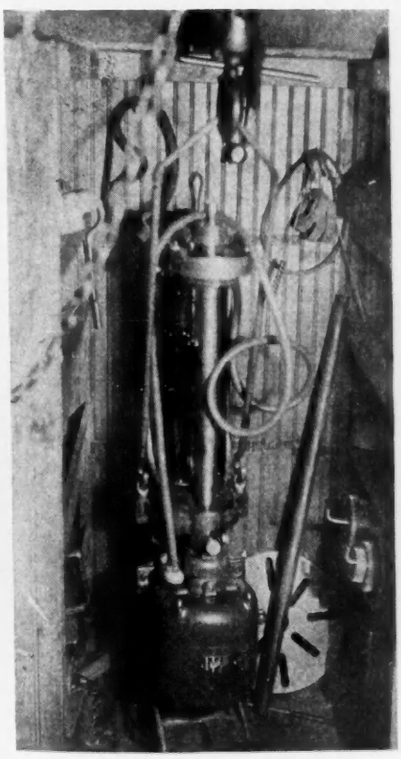
Cutters for the cylinder reboring machine are sharpened by a tool post grinder in a lathe while mounted in a special jig. End of the jig is made like the tool holder in the machine and the end of the jig screws on the lathe in place of the face plate or chuck.

Fig. 36—Sky-hook for Cylinder Reborer

The cylinder reborer is kept in a closet when not in use and the job of lugging it in and out of the closet has been simplified by using a special hook and shop overhead hoist. The hook extends down to eyes placed just above the motor and ends at the top in a flat V. The hoist hook is slipped over the hook and the machine moved out with practically no effort.

Fig. 37—Vise for Piston

A swivel-type bench vise and two blocks of wood are used to support pistons during reaming operations. By means of the swivel the piston can be placed in any position desired by mechanics, at some distance back of the bench edge or in front of it.



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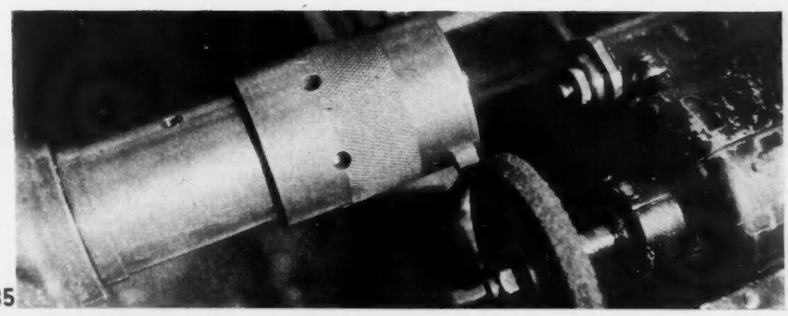

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37

Rating Formulas Are Keys to Sound Selling and Buying

CONTINUED FROM PAGE 26

placement. This is an average value for average conditions and may vary slightly from actual torque developed. In the performance factor formula, due to the fact that the torque used is the torque at the maximum rated speed, an additional factor of .83 must be used so that the factor becomes .625 × .83 or .519. Therefore,

R = Axle gear reduction.

r = Rolling radius of loaded driving tires in inches.

RF = Road-rolling resistance factor in pounds per pound of GVW or GTW. A recommended basis for purposes of comparison is 0.015, an average value.

G = Grade in per cent.

e = Efficiency from engine to tires in direct drive. A recommended average is 0.90 in direct gear and 0.80 through transmission gears.

BHP = Brake horsepower available for propulsion of vehicle or train.

MPH = Vehicle speed in miles per hour.

RPM = Engine speed in revolutions per minute in direct gear.

PF = Performance factor.

With these figures and the meaning of the various terms, such as torque, gear ratio, horsepower, etc., in mind, the S.A.E. proposed truck rating takes on a new significance. Data for a typical truck will illustrate the rating and how it is applied.

The proposed four-term method comprises:

1. Gross capacity of chassis to nearest 100 lb.
   (This term is for the purpose of classification and includes the payload, cab, body, body equipment and auxiliary mechanical equipment.)
2. Gross vehicle weight to nearest 100 lb.
   (This term is the vehicle manufacturer's recommended maximum gross vehicle weight.)
3. Net chassis weight to nearest 100 lb.
   (This is the weight of chassis less the weight of the engine, engine accessories, clutch and transmissions and is given as pertinent information.)
4. Performance factor.

The typical (imaginary) truck to be used as an example has an engine with 200 cu. in. piston displacement governed, or having maximum recommended, speed of 2500 r.p.m. Vehicle gross weight is 10,000 lb. Weight of chassis is 3500 lb.

As proposed under the new rating the truck would be rated thus: 65-100-30-167. The first figure is the chassis weight of 3500 lb. subtracted from the gross vehicle weight of 10,000 lb. The second figure is the gross vehicle weight of 10,000 lb. The third figure is the chassis weight minus weight of engine and transmission, assumed for easy reckoning at 500 lb. In the first 3 terms, 00s for hundred, are omitted.

The fourth term is calculated from the formula. PF = 3.34 × displacement × revolutions per minute divided by gross vehicle weight. Substituting actual figures for terms we have 3.34 × 200 × 2500 divided by 2500, which equals 167.

Referring to the grade and speed table and in particular to the performance factor of 165, which is the nearest to 167, we find that the truck has grade ability of 4.0 per cent and speed of 30 m.p.h., or speed of 40 m.p.h., with grade ability reduced to 2.6 per cent. In fact, with enough gear ratios from a stock room we can use up that performance in a variety of ways ranging, so far as the table is concerned, from 45 m.p.h. and 2.2 per cent grade to 19.1 per cent grade and 8 m.p.h. Incidentally, a 19 per cent grade is quite a hill. We can exchange speed and grade at will, but we cannot increase the total by so much as a single unit.

Operating conditions may demand an increase in the total performance factor, mathematics to the contrary notwithstanding. Suppose the job demands a grade ability, in high gear, of 4.7, instead of 4.0, coupled with speed of 30 m.p.h. Looking down the 30 m.p.h. column until we come to 4.7 and then looking along this line to the left we find performance factor of 185. Inasmuch as grade, speed and gross weight are fixed the only way to get a larger performance factor is to increase engine displacement or speed, or both. The increase in performance factor required is 12½ per cent and this can be obtained by choosing an engine with 12½ per cent more piston displacement, which figures out 225 cu. in. instead of 200 cu. in.

The S.A.E. rating committee, realizing from the magnitude of its own effort to solve the rating problem and from outside comment, that there are pitfalls in the way of any new rating has voted to subject the four-term method to actual use for a period of time before taking final action looking toward approval.

Performance Factors With Equivalent Grades and Speeds

	Based on S.A.E. Performance Factor Rating for Road Resistance of 30 lbs. per ton								
Performance Factor	Miles Per Hour in High Gear								
	45	40	35	30	25	20	15	12	8
100	0.7	1.0	1.4	1.8	2.5	3.5	5.2	6.8	11.0
105	0.8	1.1	1.5	2.0	2.7	3.7	5.5	7.2	11.6
110	0.9	1.2	1.6	2.2	2.9	4.0	5.8	7.7	12.2
115	1.1	1.4	1.8	2.3	3.1	4.3	6.2	8.1	12.9
120	1.2	1.5	1.9	2.5	3.3	4.5	6.5	8.5	13.5
125	1.3	1.6	2.1	2.7	3.5	4.7	6.9	8.9	14.1
130	1.4	1.7	2.2	2.8	3.7	5.0	7.2	9.3	14.8
135	1.5	1.9	2.4	3.0	3.9	5.3	7.5	9.7	15.4
140	1.6	2.0	2.5	3.2	4.1	5.5	7.9	10.2	16.0
145	1.7	2.1	2.7	3.3	4.3	5.7	8.2	10.6	16.7
150	1.8	2.2	2.8	3.5	4.5	6.0	8.5	11.0	17.3
155	2.0	2.4	2.9	3.7	4.7	6.3	8.8	11.4	17.9
160	2.1	2.5	3.1	3.8	4.9	6.5	9.2	11.8	18.5
165	2.2	2.6	3.2	4.0	5.1	6.7	9.5	12.2	19.1
170	2.3	2.8	3.4	4.2	5.3	7.0	9.8	12.7	19.8
175	2.4	2.9	3.5	4.3	5.5	7.3	10.2	13.1	20.4
180	2.5	3.0	3.7	4.5	5.7	7.5	10.5	13.5	21.0
185	2.6	3.1	3.8	4.7	5.9	7.7	10.8	13.9	21.6
190	2.7	3.2	3.9	4.8	6.1	8.0	11.2	14.3	22.3
195	2.8	3.4	4.1	5.0	6.3	8.3	11.5	14.8	22.9
200	2.9	3.5	4.2	5.2	6.5	8.5	11.8	15.2	23.5
205	3.0	3.6	4.4	5.3	6.7	8.7	12.2	15.6	24.1
210	3.2	3.7	4.6	5.5	6.9	9.0	12.5	16.0	24.7
215	3.3	3.9	4.7	5.7	7.1	9.3	12.8	16.4	25.4
220	3.4	4.0	4.8	5.8	7.3	9.5	13.2	16.8	26.0
225	3.5	4.1	4.9	6.0	7.5	9.7	13.5	17.2	26.7
230	3.6	4.2	5.1	6.2	7.7	10.0	13.8	17.6	27.2
235	3.7	4.4	5.2	6.3	7.9	10.3	14.2	18.1	27.9
240	3.8	4.5	5.4	6.5	8.1	10.5	14.5	18.5	28.5
245	3.9	4.6	5.5	6.7	8.3	10.7	14.8	18.9	29.1
250	4.0	4.7	5.7	6.8	8.5	11.0	15.2	19.3	29.7
255	4.1	4.9	5.8	7.0	8.7	11.3	15.5	19.7	30.4
260	4.3	5.0	5.9	7.2	8.9	11.5	15.8	20.2	31.0
265	4.4	5.1	6.1	7.3	9.1	11.7	16.2	20.6	31.6
270	4.5	5.2	6.2	7.5	9.3	12.0	16.5	21.0	32.3
275	4.6	5.4	6.4	7.7	9.5	12.3	16.8	21.4	32.9
280	4.7	5.5	6.5	7.8	9.7	12.5	17.2	21.8	33.5
285	4.8	5.6	6.7	8.0	9.9	12.7	17.5	22.2	34.1
290	4.9	5.7	6.8	8.2	10.1	13.0	17.8	22.7	34.7
295	5.0	5.9	6.9	8.3	10.3	13.3	18.2	23.0	35.3
300	5.1	6.0	7.1	8.5	10.5	13.5	18.5	23.5	36.0

CUMMINS DIESEL SPANS COUNTRY IN 78 HRS. AT FUEL COST OF $21.90

Something to Shoot at

THE TRIP: Transcontinental New York City to Los Angeles, California, southern route.

DISTANCE: 3220 miles.

TIME: Elapsed, 91 hr. 10 min.; running time, 78 hr. 10 min.

AVERAGE SPEED: On elapsed time 35.4 m.p.h., on basis of running time 41.3 m.p.h.

FUEL CONSUMPTION: 365 gal. fuel oil, cost at estimated market price $21.90; 8.9 miles per gal., 92 ton-miles per gal. Cost .68 cents per vehicle mile.

THE VEHICLE: A 32-passenger bus powered for the run by a Cummins Diesel six-cylinder 125 hp. engine. Vehicle gross weight 21,500 lb. including five persons, luggage, oil, etc.

By JOSEPH GESCHELIN

HURTLING across the continent at express train speed, a 10½-ton vehicle powered by a six-cylinder Diesel engine traveled from New York City to Los Angeles, Calif., in 91 hrs. elapsed time. $21.90 for fuel oil sufficed to take it clear across the long stretch of mountains and desert on the Southern Route. The entire trip was made without a fan in the cooling system and without an engine mishap. In fact the home stretch of hot desert sands through California was made at a sustained speed of 60 miles per hour.

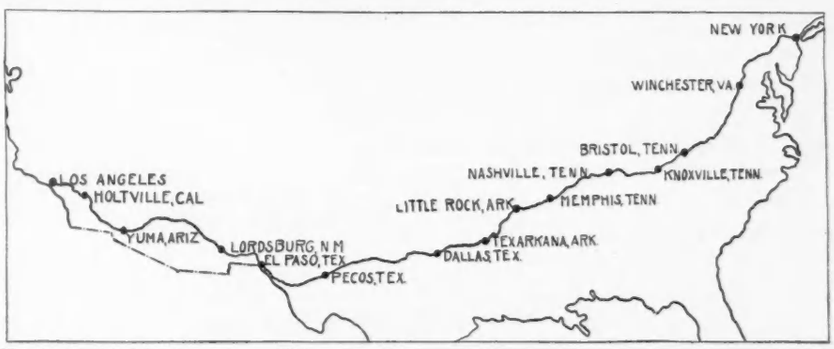
If you've listened to the radio the last couple of Sundays, you will recognize this as the high spot of the record-breaking transcontinental run made in a 32-passenger bus equipped with a Model H Cummins Diesel engine 4⅞ x six-cylinder, rated at 125 hp. at 1800 r.p.m. Your scribe (lucky guy) was aboard as official technical observer representing the Chilton Co., which publishes COMMERCIAL CAR JOURNAL.

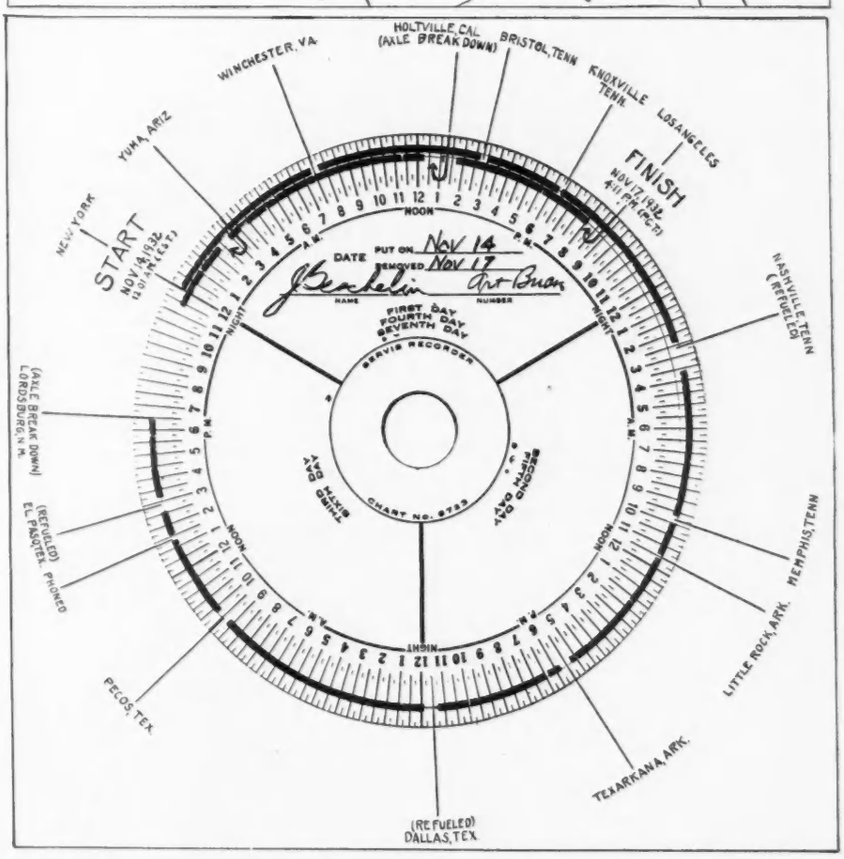
They said it was an endurance run just to show the automobile world and the transportation industry what the new Cummins engine could do. But they didn't reckon with Dave Evans, veteran race car driver and born to the wheel, and C. L. Cummins, who divided the driving honors.

No indeed! The boys discovered that they could wind her up to 65 miles per hour, and they did. No wonder we were able to stay awake for 96 hours and faithfully observe

TURN TO PAGE 60 PLEASE

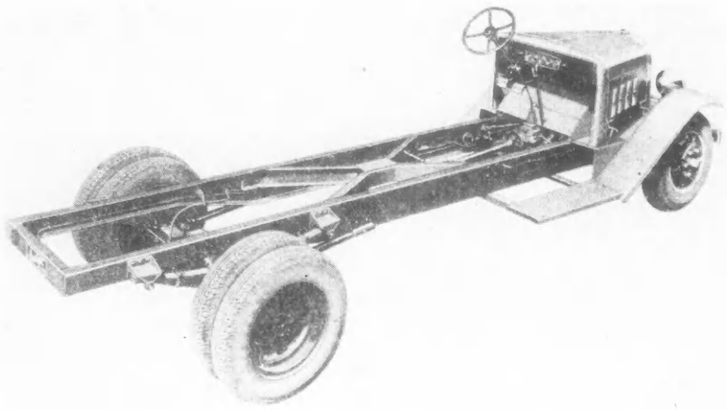
Members of the crew who flashed across the country in a Cummins-Diesel Powered 32-passenger bus in the record time of 78 hr. 10 min. From left to right they are: Dave Evans, veteran race driver; C. L. Cummins, president Cummins Engine Co.; Art Buck, correspondent; Joseph Geschelin, Automotive Industries, and Ted Kelly





Route and log of the transcontinental Diesel run from New York to Los Angeles, showing points of 12 stops. Exact chronological data are given in the chart. There were three refueling points. Axle breakage was responsible for the two big gaps

AVAILABLE + GRAMM



New Available features straight-line drive

Available Works Several New Ideas in Two-Tonner

A NEW two-ton chassis, incorporating several unusual and advanced features of design, marks the Available Truck Company's entry into the two-ton bracket. Designated as Model W-140 this new unit embodies such features as straight-line drive, no spring shackles, load adapting springs, 10-in. arc welded and hot riveted frame tapered off to give low chassis height, wide fenders and Bendix Startix. It is available in two standard wheelbases: 168 and 182 in.

The powerplant consists of a Waukesha Model ZK 3⅜x4⅛-in. six, developing 63 hp. at 3000 r.p.m., mounted in unit with a 10-in. Jones clutch and a four-speed Warner-Gear transmission. Drive is carried to a spiral bevel full-floating Timken rear axle through shafts laid out for minimum angularity and equipped with the new Blood type bronze washer universal. Service braking is provided by Lockhead four-wheel design. The parking brake is fitted to the rear of the transmission.

Side rails of the pressed steel frame are 10 in. deep for the greater part of their length—tapering is employed to aid in making possible low chassis lines. To obtain greater strength and capacity a heavy "X" member, arc-welded into one piece, cross braces the structure together with four additional cross-members.

Spring design is unconventional. Front springs are mounted in rubber at the front ends and have plain end construction at the rear, thereby eliminating shackles, their lubrication and maintenance. Rear springs are plain at both ends and rest against specially designed brackets with curved contours giving an effective spring length when not under load of 58 in. and under load of 46 in. The springs are fitted with large nickel center bolts and rebound clips. Front ends of the radius rods are of ball and socket construction with an automatic take-up as wear occurs, while the rear ends have yokes.

Fenders are heavy gage, rigidly braced and of modern design with long, sweeping lines. Budd spoke type wheels are equipped with 7.00/20 dual rears. Standard equipment includes plain or chromium plated radiator shell, chrome plated grill, 5-in. chrome plated oval bumper, spare wheel, air cleaner, speedometer, heat indicator, license brackets and hood and cowl ventilating doors.

Kleiber Joins Diesel Clan

Two Cummins Diesel engine-powered trucks have been added to the line of the Kleiber Company, a four-cylinder model, designed as KB4 and listing at $4,300 and a six-cylinder unit, model KD6. Both are equipped with Eaton herringbone dual reduction axles and Westinghouse airbrakes.

Oshkosh 2-Ton 4-Wheel Drive

Oshkosh Motor Truck, Inc., has added a new speedy four-wheel drive truck model to its line. This new unit of 1½-2-ton capacity is known as the Oshkosh Four Wheel Drive, Jr. The chassis weight is 4760 lbs.

Gramm Brings Out 3 to 5-Ton Semi-trailer at $295

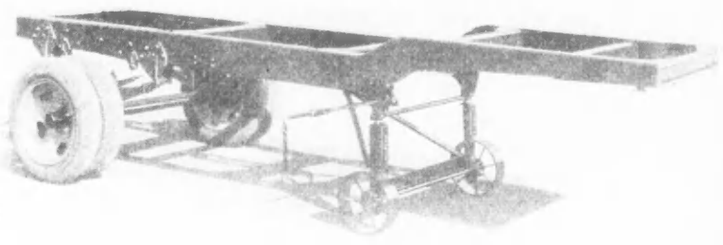
A SEMI-TRAILER of three to five tons and listing at $295 is the latest addition to the trailer line of Gramm Motors, Inc. It is the 14-ft. member of the Series DF35, which also includes 16-ft. and 18-ft. length models. This new series is featured by a heavy drop frame of electric welded and hot riveted construction and a Timken tubular axle.

The frame is constructed of 8⅝ x 3¼ x ¼-in. pressed steel channels and six cross members. It is 14-ft. 3-in. long, 41 in. wide and is dropped 5½ in. Height from ground to top of frame at rear axle is 39 in. unloaded and 35 in. loaded. The springs are made up of 14 main leaves 45 x 2½ x 5/16 in. and six helper leaves 30 x 2½ x 5/16 in. The tubular Timken axle, straight rated at 10,000 lb., has an outside diameter of 4 in. with a wall thickness of ½ in. Wheels which are disk wheels equipped with 6.00/20 balloon dual tires are standard equipment. Wheels interchangeable with Ford or Chevrolet wheels are furnished at no extra cost. Other sizes are available at extra cost.

The upper fifth wheel, which will couple with all standard semi-automatic lower fifth wheels, is a 2⅞-in. diameter, pin and plate type. Lubrication fittings are of the Alemite high-pressure type although Zerk fittings are furnished, at no extra cost, wherever specified. Bendix mechanical, Lockheed hydraulic or Warner electric brakes are supplied when specified and at extra cost. Front wheels, or supports, are furnished at extra cost and are of the screw type, adjustable for height.

Stutz Starts Pak-Age-Car

The Pak-Age-Car, the purchase of which was recently completed by the Stutz Motor Car Co., will be manufactured in the Stutz plant in Indianapolis. The unit will be exhibited at the New York Automobile Show.



Gramm 14-ft. Series DF35 semi-trailer

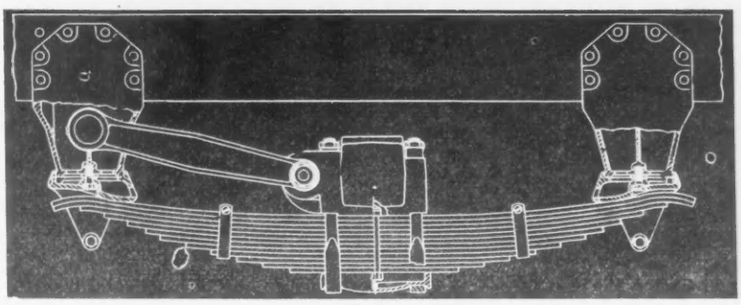
GENERAL MOTORS + W. C. LIPE

Spring in New 40,000 Lb. GMT Shortens With Load

WITH the addition of two new models, the T-110 4-wheeler and the T-130 6-wheeler, General Motors Truck Co. has extended its line into a still higher range, the former carrying a gross rating of 40,000 lb. and the latter 50,000. The new models follow the design of the T-85 and T-95 respectively, but have larger engines, heavier frames and axles, larger tires.

While several types of engines are available in these trucks, standard equipment is the GMT-616 valve-in-head model, which has the same characteristics of design as the GMT 525 engine in T-85. The engines optional at price reductions are: GMT 468, a 113 hp. 4¼x5½-in. six and GMT 525, a 128 hp. 4½x5½ six. The GMT 707 5 x 7-in. six developing 173 hp. at 2100 r.p.m. is optional at extra cost.

GMT 616 engine features include a replaceable semi-steel sleeve in each cylinder bore; aluminum crankcases; cylinder heads in two parts for easier servicing; counterweighted crankshafts with harmonic balancers; pressure lubrication of piston pins; aluminum-alloy pistons fitted for close clearance; automatic hydraulic valve adjusting mechanism for zero tappet clearance eliminating noise, reducing wear and decreasing the attention necessary; tulip-type exhaust valves; removable stellite-faced valve-seat inserts, a drive for water pump through a spring to prevent damage in case of seizure; dual V-belt fan drive; downdraft duplex carburetor with heavy-duty triplex air cleaner; three-point rubber engine mounting; oil cooler, cleanable type oil filter; two-part oil pump (one unit for the cooler and one for bearing lubrication); three-piece exhaust manifold to allow free expansion; non-jamming starting motor.



Springs on Model T-110 contact cam-shaped blocks

Both of the new models have heavy-duty, double disk-type clutches and a four-speed heavy-duty truck-type transmission, with two power take-off openings and all shafts carried on ball or roller bearings. A three-speed auxiliary transmission is located amidships.

Frames are fitted with stress absorbers in the form of channel reinforcements, etc. Front springs are shackled at the front and have double-wrapped eyes at the rear. The rear spring on the T-130 is of the same type as on the T-95, with the ends sliding in block-type shackles, provided with oil reservoirs for proper lubrication. On the T-110 a single set of springs is used without auxiliaries, but of novel design. The spring is underslung and mounted directly below the frame channel. Instead of being shackled, the spring ends contact a cam-shaped block at each end in such a manner that under light loads the effective length of the spring is approximately 65 in. As the load increases and the spring deflects more the effective length of the spring is reduced to a minimum of 50 in. in the metal-to-metal position. These springs are 6 in. wide and have 14 one-half inch leaves. These blocks are made in such a manner that they are replaceable on the truck. Torque rods take both torque and propulsion.

On the T-110, rear axles are of the double-reduction type, while the T-130 rear axles are worm gear SW460 series. The four-wheeler is built in 171½, 189½ and 204½ in. wheelbases; the six-wheeler in 189½, 204½ and 224½.

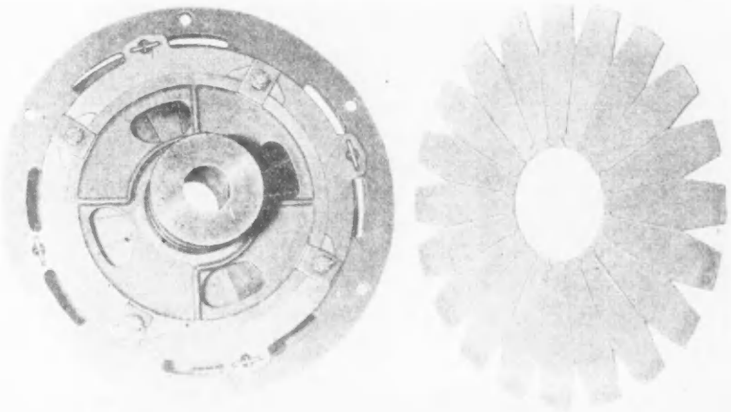
W.C. Lipe Clutch Provides for Loss of Spring Pressure

W. C. LIPE, Inc., Syracuse, N. Y., has developed a new type heavy-duty clutch embodying several new features of construction.

Non-shock engagement and automatic compensation for loss of spring pressure resulting from wear on the facings are provided for in this new clutch by centrifugal force acting on 20 interlocked pressure levers to augment the clutch spring when the clutch is engaged and retard spring action when the clutch is disengaged. The clutch spring has no direct contact with the pressure plate and its pressure is multiplied and applied evenly through the levers acting on the pressure plate. Facing wear decreases spring pressure, resulting in loss of capacity. But in this clutch the loss is overcome by centrifugal force acting on the levers.

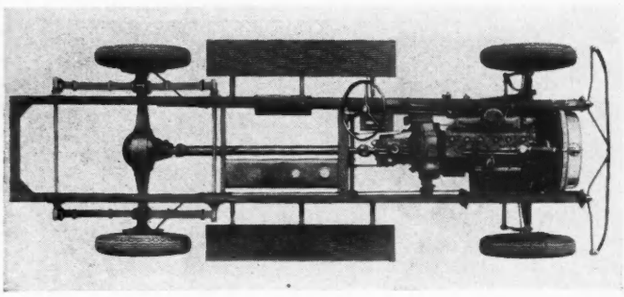
The non-shock engaging feature is calibrated to the requirements of each manufacturer's model by simply increasing or decreasing a short offset at the outer ends of the levers, thus setting the mass ahead or back to increase or decrease centrifugal action on these levers. Adjustment is accomplished by removal of shims and only one adjustment is necessary to obtain all the permissible wear of the facings. Gear tooth chamfering is incorporated in the splines in the driven plate hub to assist in assembling the transmission to the clutch.

The clutch which is a self-contained unit is manufactured in four sizes, 11, 12, 13 and 14-in. ranging in torque capacity from 160 lb. ft. to 350 lb. ft.

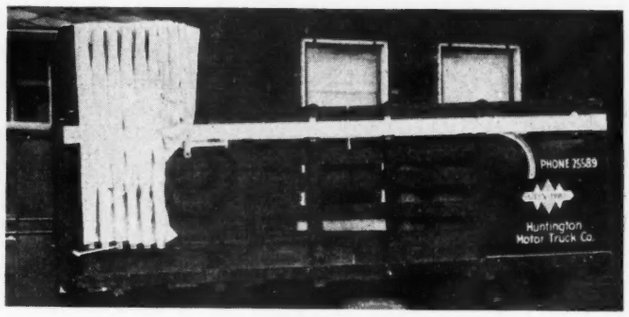


W. C. Lipe clutch and 20-pressure levers

STEWART + SPICER + KINGHAM



Stewart Model 41X offered in two wheelbases



Kingham top in position for loading

Stewart Gets Into ¾-Ton Class with New $695 Job

A NEW ¾-tonner, designed primarily for retail delivery service requiring from 100 to 300 stops per day, is announced by Stewart Motor Corp. This new unit designated Model 41X is furnished in two wheelbases. The standard wheelbase, 124 in., which is suitable for bodies with a 7 ft. loading space, and lists at $695. The longer wheelbase edition, 134 in. for an 8 ft. body, is furnished at an extra cost of $30.

The engine is a six-cylinder 3⅛ x 4½-in. Lycoming and is capable of developing 56 hp. at 2600 r.p.m. It is mounted in unit with a 10-in. Borg & Beck plate clutch and a 4-speed Warner Gear transmission. Drive is carried through a 3-in. tubular drive shaft equipped with Spicer joints to a Clark spiral bevel semi-floating rear axle with standard gear ratio of 5.4:1. A special ratio of 4.25 is furnished at extra cost.

The pressed steel 6 x 2¼ x 5/32-in. frame is supported by 38½ x 2¼-in. 13-leaf springs in front and 50 x 2½-in. 10-leaf springs at rear. Wheels are steel spoke type equipped with 6.50/18 balloons throughout. Oversize 7.00/18 balloons are furnished at extra cost.

Service breaking is through mechanically operated Bendix Duo-Servo system, the shoes expanding in 12 x 1¾-in. drums front and rear. The four-wheel service braking system is operated by lever for parking.

Studebaker, Indiana, White, P.-A.

CONTINUED FROM PAGE 43

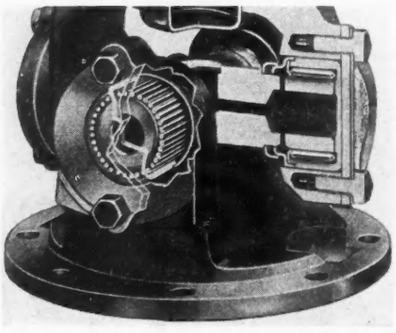
price bracket. Effective immediately, Pierce-Arrow trucks will be sold through all White branches, together with White trucks. The Indiana picture in this respect will not be changed. In general, however, both Indiana and White trucks will be made available to the Studebaker dealer organizations. Similarly Studebaker trucks will in general be made available to and sold through White branches. In some cities, however, Studebaker passenger car distributors will continue to sell Studebaker trucks. Manufacturing, engineering and sales headquarters of Pierce-Arrow trucks will be removed from Buffalo to Cleveland before January 1, according to A. G. Beane, president of the White Motor Company.

Spicer Puts Needle Bearings in 2 Universal Joint Series

SPICER MFG. CORP., Toledo, Ohio, has incorporated needle bearings in its universal joints. There are two groups, which include the KR100, 200 and 300 series as used in passenger cars and light trucks, and KR400, 500, 600 and 6500 series for heavy duty trucks.

As their name indicates, needle bearings comprise a large number of straight needles of relatively small diameter. Low unit pressures reduce friction, increase load-carrying ability, minimize wear and consequently lengthen the life of the unit. In addition, the makers state that the KR type joint does not require as much lubrication as joints with plain bearings, and the unique advantage in design permits greater angularity.

The joints are adapted for use with companion flanges or in one-piece yoke construction fitting directly on vehicle shafts.



Needle bearings shown in phantom

Kingham Makes Convertible Tops for Truck Bodies

THE Kingham Trailer Co., Louisville, Ky., is offering in the Kingham Woolcott Convertible Top, rights for the manufacturer and sale of which were recently acquired, a modern device for quickly covering and uncovering truck and trailer bodies.

The top consists of a lazy-tong type of understructure, two slide rails and covering material and is furnished for any kind of body regardless of height, width or length. It is operated by a crank at the front of the body and, after the truck or trailer is loaded, can be completely covered and uncovered in less than 60 seconds. An automatic locking device securely fastens the top in either the open or closed position. When open the top folds compactly at the front end of the body. There are no bows nor ridge pole to interfere with quick loading and unloading. The sides partly or completely cover the sides, according to type of body or operating requirements.

Two models are made, one with cover curved over the back and another without curve for use where nature of load will not permit the curve top. This cover is claimed to outlive several tarpaulins because of the fact that it is stretched tight with no flapping in the wind, no ropes to break, no chance of losing cover while on the road and less chance of damage by prematurely folding when wet.

Nelson-LeMoon Offers Diesel Job

Nelson-LeMoon Truck Co. of Chicago has joined the Diesel band-wagon with a 10 to 12-ton six-wheel unit, designed Model 1200-D. The engine is a six-cylinder Cummins. It is equipped with two Timken heavy duty worm drive axles especially designed and mounted in tandem and Westinghouse airbrakes.

Two Kinds

THERE is a group of vehicle operators—owners of cars, trucks, buses—who will tell you that there are just two kinds of brakes: Hydraulics, and others.

To these single-minded people, who represent a vast market, there is only one answer to the "What Brake?" question: LOCKHEED—for in LOCKHEED is to be had safety, comfort, dependability and lasting satisfaction.

And there is an ever increasing group of manufacturers of passenger and commercial vehicles who recognize the existence — the persistence — of that LOCKHEED-minded market; and who wisely give it what it wants.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U. S. A.

LOCKHEED HYDRAULIC
Four BRAKES *Wheel*

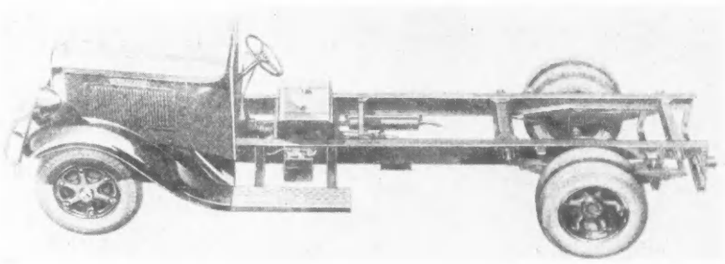
STUDEBAKER + SANDER

Studebaker's New L¾-2½-Ton Model S4 Lists at $785

STUDEBAKER rings the bell with another low priced truck chassis, a 1¾-2½ ton job listed at $785. This new Studebaker Model S-4, available in 130, 141 and 165 in. wheelbases, has a variable gross rating of 9000 to 10,500 lb., depending upon operating and load conditions.

It is powered with the Studebaker 3¼ x 4⅝-in. 75 hp. six. This 230-cu. in. displacement engine with its 4.6 to 1 compression ratio develops 60 hp. at 2180 r.p.m., but has a maximum of 75 hp. at its peak. New engine improvements include downdraft carburetor and manifold; crankshaft now 2½ in. diameter; an improved vibration dampener; gear-driven cam and accessory shaft and a new crankcase breather. A Handy governor is included as standard equipment.

The engine is mounted in unit with a Long clutch and a four-speed Warner transmission. The rear axle is a Clark full floating, spiral bevel gear type. Final reductions of 6.8:1 and 5.6:1 are optional. Power brakes are standard equipment. They are mechanically operated Bendix two-shoe servo type amplified by vacuum. The 6 x 2¾ x 3/16-in. frame is braced by U-shaped cross members of side rail depth and is supported by four semi-elliptic springs, 36 x 1¾-in. front and 45 x 2½-in. rear. Helper springs are included as standard equipment at no extra cost. This chassis in common with Studebaker practice is designed to provide standard S.A.E. mounting dimensions. Tires: 6.00/20 front and 6.50/20 dual rear.



New Studebaker is available in three wheelbases

Sander Brake Booster Is Actuated by Engine Gas

A BRAKE booster operated by engine combustion gases is being operated by the Otto Sander Co., Inc., Grand Rapids, Mich. The gases are collected through an accumulator valve screwed into the cylinder head and passed to a small condenser tank adjacent to the block where they are kept warm by the heat of the engine, so that the condensate cannot freeze as long as the engine is in operation. A valve in the bottom of this tank permits periodic draining.

From the condenser tank the gases are led to a larger reserve tank mounted under the running board or behind the cab. This tank also has a drain valve and, in addition, a pressure gauge, mounted on the dash, connected to it.

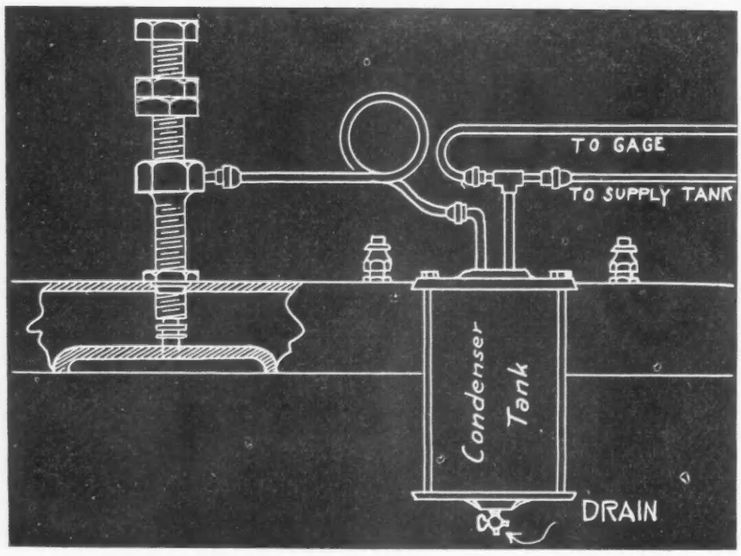
This booster is installed as an addition to the regular mechanical brake hook-up. The control valve is mounted on the master brake rod a few inches behind the brake pedal. The usual clevis at the end of the brake rod is replaced by a special clevis between the valve and the stop nut on the end of the rod.

This is adapted to slide on the brake rod and permits a slight motion of the brake pedal before the hub of the sliding clevis comes up against the stop nut on the brake rod. This motion of the brake pedal and rod opens the valve before the slack in the mechanical hook-up is taken up.

It will be seen that the sliding joint permits the brake pedal to move independently of the brake rigging when the booster functions. In the event of failure of the booter, the original mechanical hook-up is available for brake operation.

When the pedal is partly depressed, the control valve is opened, and gas under pressure flows into the power cylinder. This results in a pull on the brake linkage in proportion to the distance through which the brake pedal has been depressed. The cylinder then closes the valve and prevents the admission of further gas.

With trailer installations the same control valve operates the trailer brakes. Should the operator prefer his trailer brakes to take effect slightly in advance of those on the tractor, the advance action can be obtained by closer adjustment or shorter travel of the trailer brakes.



Showing passage of engine gas to supply tank

Sterling Swings Into Diesel Production

Following announcement to its branch and dealer organization of a complete range of four and six-cylinder Diesel powered heavy duty truck models, Sterling Motor Truck Co. has launched into a definite program of activity in the field of Diesel truck operation. While to date 13 Sterling models have been announced powered by Cummins Diesels, the company's first regular production models are now on the construction line. The Sterling Diesel line ranges in capacity from 4 tons up.

I. H. C. ½ Ton Started

Final engineering and sales approval was given to the new half-ton truck to be manufactured by Willys-Overland Company for the International Harvester Co. Production will begin about December 15th.

A Reciprocity Conference

To nationalize the issues of reciprocity and uniform regulation, the Truck Association Executives of America has decided to bring these questions before the American Road Builders Association at its annual event to be held in Detroit, January 16-29. To take advantage of a common meeting point, meetings of Motor Vehicle Administrators, Utility and Railway Commissions and the Truck Association Executives of America are being arranged to take place during the same week.

Oregon Operators Win Election Fight

The railroad effort to eliminate for-hire truck competition in Oregon failed by 20,000 majority. The measure was sponsored by the Highway Protective Association. The defeat was a signal success for truck owners who have for the first time sufficiently mobilized their interests in an intelligent battle in the defense of their right to use the public highways.

Commissioners Draft Model Law

The National Association of Railroad and Utility Commissioners at its 44th Annual Convention in Hot Springs, Ark., drafted a model truck law as a basis for legislation governing the operation of trucks. The model will be submitted to the states as a suggested basis for Federal and uniform state regulation.

Wondries and Preble Get New Positions

C. H. Wondries, formerly vice-president in charge of sales of S.P.A. Truck Corp., is now vice-president of The White Co. in charge of the Studebaker Division and T. L. Preble, formerly sales manager of the Pierce-Arrow Division of S.P.A., has become manager of the Pierce-Arrow Division of the White Co., according to J. M. Cleary, president.

B. & M. Lops Off Delivery Charge

Effective January 1st, the Boston & Maine Railroad and several other New England railroads will reduce pick-up-and-store-door delivery of less-than-car-load-freight to the standard railroad station-to-station rate. This abolishes the five and ten-cent pick-up and delivery charge now added to the station-to-station rate.

Replaces Barges for Trucks

Adoption of motor truck delivery of coal instead of by river barge to its two large steam generating plants in the downtown district of Milwaukee by the Milwaukee Electric Railway and Light Company was effected to save money. More than 160,000 tons of coal are consumed annually at this plant. Truck delivery will be accomplished at night to avoid congestion.

Canadian Rail to Truck

Canadian Pacific and National Railways are prepared to meet highway competition by entering truck transportation business and engaging in hauls not exceeding 50 or 60 miles.

Propose Federal Transportation Bureau

For the purpose of extending Federal regulation over all forms of transportation, Claude R. Porter, chairman of the Interstate Commerce Commission, proposed the creation of a new government agency to be known as the Bureau of Transportation.

Restrains Return Loads

A complaint by northwest railroads and common carrier motor companies that the hauling of merchandise on return trips from live-stock markets by unregulated live-stock truckers was illegal was upheld by the District Court in St. Cloud, Minn.

Sees Large Business Ahead

Officials of the Reo Motor Car Co. are looking forward to a large truck business after the first of the year.

Predicts 50% Increase in '33

Albert R. Erskine, chairman of the Board of Pierce-Arrow Company, predicted 50 per cent increase in automobile business next year.

Lon Smith with Cummins

Lon R. Smith has been appointed special representative of the Cummins Engine Co., Columbus, Ind.

Jersey Requires Direction Indicators

Effective January 1 New Jersey trucks must be equipped with direction indicators to warn of intention to start, stop, back or make a turn.

Jud Purvis Joins Weaver Mfg.

J. A. (Jud) Purvis, formerly technical editor of AUTOMOBILE TRADE JOURNAL and managing editor of *Motor World Wholesale*, is now advertising manager of the Weaver Mfg. Co.

Upholds State Right of Texas

U. S. Supreme Court ruled that Texas had the right to regulate motor vehicle private contract carriers. The issue was the right of Texas to require contract motor carriers to obtain permits from the commission, which are given only after the commission determines that the proposed operation will not impair the efficient service of any authorized common carrier serving the territory.

Lining Up for Battle

A group of Tennessee and Arkansas shippers and carriers organized the Mid-South Shippers & Carriers Association for the purpose of guarding against and fighting unfavorable truck legislation, scheduled for the next sessions of the legislatures of those States. T. W. Lewis, of the Lewis Supply Company of Memphis and Helena, Ark., heads the organization. Chriss E. Collins was chosen as secretary. The Board is made up of well-known men in both cities.

Studebaker, Indiana, White, P.-A.

All four lines of trucks, Studebaker, Indiana, White and Pierce-Arrow will be continued, according to John M. Cleary, president of the White Company and the Studebaker-Pierce-Arrow Truck Corp. Mr. Cleary said that basically the lines do not conflict and in price structure are arranged with Studebaker at the lower end, Indiana next, White above this and Pierce-Arrow covering the highest

TURN TO PAGE 40, PLEASE

I. C. C. Defends Small Operators

Rate increases on less-than-car-load shipments on railroads within Texas ordered by the Texas Railroad Commission were nullified by the Interstate Commerce Commission so that the smaller railroads of the State may meet the competition of larger carriers operating truck services and independent truckers.

Toll Roads for Rail Beds

A plan to transform 2000 miles of railroad in New England into hard surface roads for railroad use and toll purpose will be presented by George L. Crocker, chairman of the Rhode Island Commission of Foreign & Domestic Commerce, to the National Transportation Committee for consideration.

New Fageol Company

The Fageol Truck & Coach Co., a new organization, has taken over the assets of the Fageol Motors Co. Officers of the new organization are Edw. B. Kelly, president; C. P. Ross, vice-president; James A. Wainwright, secretary and treasurer, and L. A. Lundstrom, manager.

Brake Service Data

An instructive booklet containing answers to daily questions about brakes, brake lining and general service problems is offered free to fleet and truck operators by the Raybestos Division of Raybestos-Manhattan, Inc.

TURN TO PAGE 44, PLEASE

Stop "Hand-Pressing Only"; Get Back to "Bare-Handed Selling"

CONTINUED FROM PAGE 17

away salesmen with the very same objections which today seem so formidable:

"Your price is too high."

"I can get better terms and discounts elsewhere."

"My customers want bigger bargains."

"I'll take some on a consignment basis."

"I'm waiting to see how things will be next month."

"See me in about two months."

These same old objections were being given to "drummers" or "traveling men" when every reader of this magazine was squirming around in his cradle. Give that fact a little more thought and it blooms out into a nice big red rose of encouragement.

For there *are* salesmen who are doing swell jobs these days. To be sure, some of them sell electric refrigerators or other new inventions or improved products that all of us itch to buy. But I am thinking about those going-ahead salesmen who are selling products which have remained unchanged for ten or even thirty years. Such goods are made by one corporation which sold nearly $15,000,000 worth of merchandise last year. Says the vice-president in charge of sales:

"Early in 1932 we made a special study of the few salesmen who were doing the best work for us. In one sense our findings were disappointing; but when we looked at them in another light, we decided that they were decidedly encouraging. Our conclusion was that the salesmen who are making the best showing apparently haven't a single new thing in their technique—nothing that they weren't using years ago. I am referring to all those old-hat principles: enthusiasm, persistence, thoroughness, drilling away to get at the real reasons for unsecured business, honesty, sincere desire to help the dealer, etcetera. All this old stuff still works. The only change we could find was that our good salesmen are making more calls per day than ever before, which result they achieve either by speeding up in general or by putting in longer hours. But the big thing to us, and the point that has helped us with *every* salesman in our employ, is the fact that good selling technique is more or less 'the same yesterday, today, and forever.' Details change but not the principles, and any salesman who holds fast to the knack he developed in good times will find that a little more effort will make it work today."

Some manufacturers who in 1929 were choosey about dealers are finding it helpful to reconsider the old saw: "Sell every dealer of sound credit."

Other dust-covered axioms of selling when brought out of the cellar look equally promising. Such as:

"Other things equal, the more calls a salesman makes in a day, the more goods he will sell."

"Put some 'sell' into every contact—make no mere 'courtesy calls.'"

"Start every day with the hardest boiled prospect on your list."

"Ask 'em to buy—if they won't, be sure you know the real reason why."

"You are the salesmanager of your own territory. Show dealers how to sell and make them your assistant salesmen. The dealer gets ten times the fun out of selling that he gets out of buying."

"Never accept a trial order until you are sure you can't get a real one."

"Remember that other salesmen are constantly trying to replace your goods—so keep selling to old customers as vigorously as you go after new ones."

"When you fail to sell, look at the dealer's shelves. Remember that every can, bottle, or box of goods in his stock was sold to him by some salesman—and most of this stock was bought by him in spite of his resistance."

"An idle sample case gathers no orders."

"A salesman is known by the objections he overcomes."

Yes; these aphorisms from the days of Barehanded Selling are as old as George Washington's cocked hat but they are helping the high salesmen of 1932 to get results that cannot possibly be secured by "Hand Pressing Only" or "waiting for the turn." With improving sentiment in business, rising commodity prices, and public discovery that bargain merchandise is not the bargain it pretends to be, this is the best possible time for the "sad-hander" salesman to return to "bare-handed selling."

NEWS

CONTINUED FROM PAGE 43

Pickel Heads Northwest Sterling

G. A. Pickel, a Northwest truck pioneer, heads the new Sterling Northwest Motor Truck Co., Portland, Ore., distributor for Washington, Oregon, Idaho, West Montana, Alaska and British Columbia.

October Sales Slump

October sales of trucks made in the United States, according to the Bureau of Census, were 13,595, compared with 19,393 in September; 21,727 in October, 1931, and 40,593 in 1930.

Marmon-Herrington Appointees

The Marmon-Herrington Co., Inc., has appointed the Associated Equipment Co., Ltd., San Francisco, and R. L. Harrison Co., Inc., Albuquerque, N. M., as distributors.

Robert Myron Cutting

Robert Myron Cutting, 50, president of the R. M. Cutting Company, makers of Chicago motor trucks, died of a heart attack November 20.

Rep. Rayburn Waggles the Scarecrow of Regulation

CONTINUED FROM PAGE 18

our Government; unwise tariff laws, complete neglect of markets for agricultural products; a deliberate and conscious diversion of the savings of the people into expanding industrial plants for foreign markets which were artificially created by lending our people's money abroad; all has resulted in a dislocation of the factors of production in this country which will require time to readjust.

As a consequence, carloadings in the railroads are the lowest in many years. Farmers are getting only 7 per cent of the value of the national income instead of 15 per cent of a few years ago, though they are producing about the same quantity of goods as ever before. That has destroyed their purchasing power to such an extent that many of our factories have had to close down. For example, manufacturers of farm machinery have been running in recent months only about 15 per cent normal capacity. With more wisdom in national affairs, the railroads will find themselves with increasing business.

It is not sufficient for the Government merely to lend money to the railroads. The taxpayers in this country cannot be expected indefinitely to carry the deficits of those corporations. Yet to permit the railroads to go into receiverships will affect the insurance companies and the savings banks to such an extent as to bring to our country disaster as great as that of losing a major war. The mere lending of money by the Government is a palliative; it is treating the symptoms. Something more fundamental must be done.

Our legislation with reference to transportation must be constructive. We rely upon private initiative to develop the most economical means of transporting our goods. It is the business of Government to see that those with initiative and leadership are protected in the enjoyment of the fruits of their services to humanity and that the public is protected from the abuses which are incident to the imperfections of human nature, and which creep into large enterprises for the reason that human beings are not all perfect either in their capacity to judge or in their estimate of their duty toward their fellowmen.

Every group in our country, the farmer, the manufacturer, those engaged in transportation and in finance, must prosper together. Unless there is fair play and mutual advantage and the opportunity for all to achieve a fair income, every group will in the end suffer. It is the business of Government to protect, to correct, and in certain instances to stimulate, but there must be reliance upon the individual for actual performance.

On new trailer units specify

TIMKEN

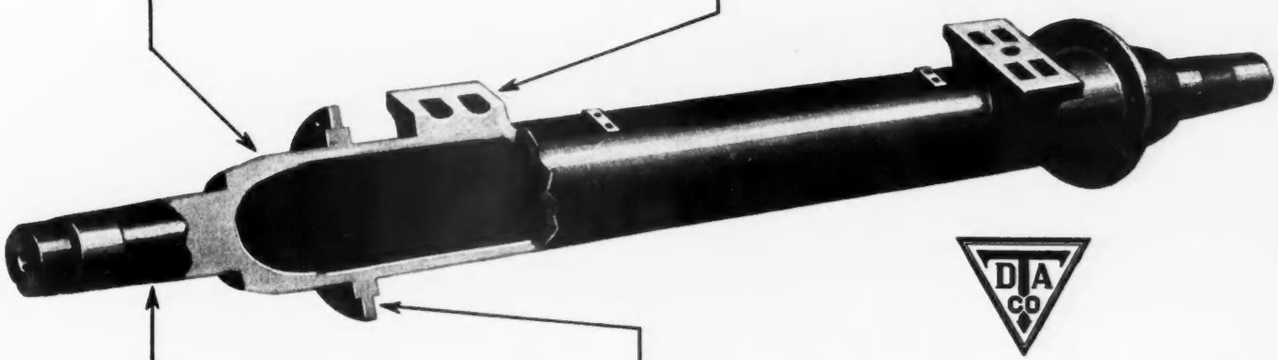
Tubular Trailer Axles

To modernize present trailers choose TIMKEN

Tubular Trailer Axles

(1) Maximum strength with minimum weight means increased pay-load capacity where gross vehicle weight is limited. The tubular beam is most rigid; resists stresses and loads from any direction.

(2) Added stresses of braking compel rigid spring mounting. Spring seats are electric-welded to the beam; no shifting.



(3) Spindles are precision machined, and electric-welded to the beam; insuring perfect wheel alignment, and maximum tire service.

(4) Rigid and concentric mounting assures effective brakes. Brake flanges are electric-welded to the beam; and machined for exact centering.

Helpful booklets dealing with this important subject will be mailed free upon request. Consult your local distributor or write us.

THE TIMKEN-DETROIT AXLE COMPANY

Detroit, Michigan

Railroad Pursues L. C. L. With Coach and Store-Door Delivery

CONTINUED FROM PAGE 29

surcharge included. As against these charges for a station-to-station service, the door-to-door Riverhead rate is 42 cents, this also including the 2-cent surcharge. Thus for fourth or lower class shipments it may pay to use the less-carload tariff. Incidentally the first-class express rate from New York to Riverhead is $1.25 a hundred.

Among the dozen or so truck lines giving regular service to various points on the Island, the rates appear to vary widely. One of the larger operators, with five routes to "all points on Long Island," publishes a class tariff, in which the New York-Riverhead rates is given as 60 cents for first and second-class shipments, and 50 cents for third, fourth and fifth class. The minimum charge is 50 cents on all shipments. These rates cover delivery to premises at Long Island points, but not pick-up in New York. A small truck operator quoted a Brooklyn-Riverhead rate of 53 cents for general merchandise, with a 60-cent minimum, these including collection in Brooklyn. Lower rates are made by the truckers for shipments of one ton or more, and to shippers who offer a certain total volume over monthly or longer periods.

The rates given in the new tariff apply not only to points where the Express Agency furnished local truck service, but also to some thirty-three others (shown in map) at which no local collection or delivery is performed. These are mostly small communities where truck operation has not been warranted, either by Agency-owned vehicles or by the hired equipment used to a limited extent. A shipment from New York to Montauk may be picked up at origin and be handled at the 47-cent rate, but the consignee in Montauk must do his own trucking.

Another interesting feature of the door-to-door service, because of the more effective truck operation involved, is the routing of shipments to the larger railroad stations, from which the Agency trucks work out to nearby or adjoining points with their own passenger-station facilities. An example of this is Oyster Bay. The trucks there serve not only Oyster Bay itself, but also Bayville, East Norwich and Cove Neck.

In giving what it advertises as "an economical and expeditious overnight service," the railroad is taking full advantage of the frequent passenger-train schedules. From New York the first morning train is due at Patchogue at 6.59 a.m., and at Sag Harbor at 9.32 a.m. Riverhead is reached at 11.20 a.m., by a train arriving at Greenport at 12.05 p.m. Allowing two hours for delivery, most of the outlying points can get business-district service not later than the middle of the morning, assuming that shipments are carried on the first eastbound trains.

The first of these trains leaves the Long Island City express terminal around 4.30 a.m. Thus the Express Agency has more than ten hours after late-afternoon collections in Manhattan and Brooklyn to handle the necessary transfer and trucking work. It should be possible therefore to make overnight movements, although some of the truck operators claim that second-day deliveries are being made of many shipments.

Observations made by the writer indicate that a considerable volume of shipments moving under the new tariff would come under first or higher classes as less-carload freight. Drygoods, cash registers, crated furniture and house furnishings, are examples. The great majority of eastbound shipments appear to be prepaid by the shippers in New York, so that the old F.O.B. warehouse is now F.O.B. customers' premises.

Those concerned with the trucking business may well inquire: What is the future of schemes such as have been introduced by the Long Island Railroad? Are they permanent? Will they be tried out by other rail carriers? These questions deserve a brief comment.

As published, the Long Island tariff bears notice that it "expires with September 30, 1933, unless sooner canceled, changed or extended." This notice has been taken by some to mean that the scheme may be abandoned at any time, as in case it does not prove profitable, or after truck competition has been eliminated. Traffic representatives of the railroad point out that the inclusion of the expiration date is merely a customary practice in tariffs considered more or less experimental. It does not indicate that the service will be discontinued at that time. The thought is, the tariff will meet with success, and then presumably it will remain in force indefinitely. The only changes likely in the immediate future are the extension of the trucking service to additional points.

Lacking the special conditions that exist on Long Island, other railroads may not be willing or may not find it practicable to have their short-haul, less-carload freight handled by the express company. Not many of them have the high density of population surrounding commercial centers, such as is found on the western part of Long Island. Not many railroads have the heavy all-year commuting traffic which on Long Island extends to stations some 60 miles out, and which has led to an extremely favorable schedule of passenger trains, and also a set-up of Express Agency trucks at most of the passenger stations. And in only a few states are common-carrier trucks permitted to come and go as they please, with no state control of rates and service. The absence of truck regulation in New York State makes it an easy matter to change the Agency truck operation, to take advantage of the large mileage of paved roads and the short distances between communities.

But in spite of all these circumstances that might seem to limit the application of the combination of passenger trains for the line haul and trucks for collection and delivery, a plan much the same as adopted on Long Island has been put into effect within recent months by rail carriers in the states south of the Ohio and east of the Mississippi Rivers.

The "Local Commodity Tariffs" as issued by Southeastern Express Company cover the larger points on the Southern Railway System and affiliated lines. Railway Express Agency, Inc., has issued similar tariffs covering other rail lines in Southern territory. With each company the tariffs apply to a wide range of miscellaneous commodities, all listed with descriptions and packing requirements and ratings. Although published by the express companies, and therefore tendering such features of express service, as collection and delivery, transportation on passenger trains, the rates in these tariffs are said to be substantially the same as less-carload rates. The service is given between the larger commercial centers in the territory, Atlanta, Memphis, St. Louis, New Orleans, and the more important cities and towns within a 200-mile intrastate or interstate radius of each center. These tariffs are issued, they specifically announce, to meet motor truck competition.

While fundamentally alike, the Southern tariffs differ in certain details from that offered by the Long Island Railroad. The express companies handle the traffic on their own account, instead of acting as contractors for the railroad, the Long Island method. In the South the less-carload class rates are used; on the Long Island, a flat rate is charged for stations in a given zone. The difference in rate structure is probably due to the fact that most of the southern states regulate common-carrier trucks and require them to use the same rates and classification as the rail carriers. Thus the tariff form has been governed in each section by local conditions of motor-truck competition.

Globe Lifts Twice

The Globe & Machinery Supply Co. has added two new full hydraulic hoists to its line. The new models will be available either as air-operated or electric-operated full hydraulic units.

Not a Leak in 100,000 Miles

A water pump guaranteed not to leak for 100,000 miles is offered by the Allmetal Universal Joint Co., of Cleveland.

Chrysler Export Promotes Dalton

C. E. Dalton has been appointed assistant director of truck sales of the Chrysler Export Corp.

SHULER
TRAILER AXLES

Will Save You Maintenance Money In 1933

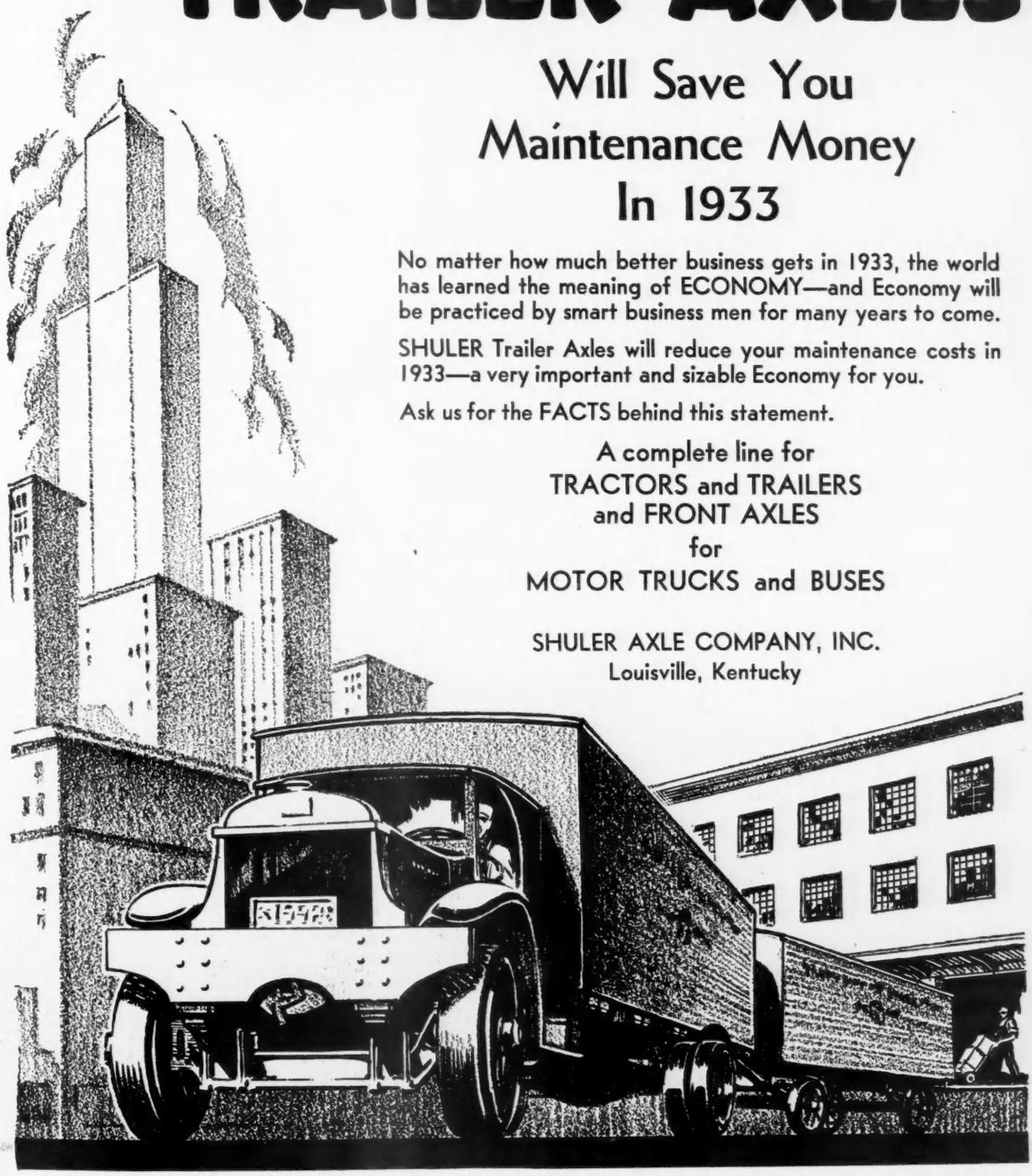
No matter how much better business gets in 1933, the world has learned the meaning of ECONOMY—and Economy will be practiced by smart business men for many years to come.

SHULER Trailer Axles will reduce your maintenance costs in 1933—a very important and sizable Economy for you.

Ask us for the FACTS behind this statement.

A complete line for
TRACTORS and TRAILERS
and FRONT AXLES
for
MOTOR TRUCKS and BUSES

SHULER AXLE COMPANY, INC.
Louisville, Kentucky



COMMERCIAL CAR JOURNAL'S

CORRECTIONS ARE MADE EACH MONTH FROM DATA SUPPLIED DIRECT BY TRUCK MAKERS +

Line Number	MAKE AND MODEL	GENERAL (See Keynote)						TIRE SIZE		MAJOR UNITS									FRAME	
										ENGINE		TRANSMISSION			REAR AXLE					
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS In High	GEAR RATIOS In Low	Side Rail Dimensions	Type
1	A.C.F. 160	6	6950	186	222	26000	10170	B9.75/22	B9.75/22	HaS 160	6-4¼x5½	BL 1714	U 4	Op	Tim 76730	2F	R	7.46	52.7	8x3	P
2	175B	6½	8300	186	222	26000	10750	B10.50/22	B10.50/22	HaS 175	6-5x6	BL 714	U 4	Op	Tim 76730	2F	R	7.46	38.6	8x3	P
3	175A	7½	8800	186	240	30000	11610	B10.50/24	B10.50/24	HaS 175	6-5x6	BL 714	U 4	Op	Tim 79730	2F	R	7.48	38.7	8x3	P
4	Armleder 11Ha	2-3	1570	156	195	11500	4070	B7.00/20	DB7.00/20	Con 16C	6-3⅝x4⅝	Fu WOBB	U 4	No	Tim	BF	H	5.83	31.2	6x3x¼	P
5	21Ha	2½-4	2185	160	207	15300	4783	B8.25/20	DB8.25/20	Her WXB	6-3¾x4½	Fu MLU	U 4	No	Tim	BF	H	6.06	38.5	6x3x¼	P
6	31Ha	3½-5	2745	146	213	19500	5838	B9.00/20	DB9.00/20	Her WXC	6-4x4½	Fu MGU	U 4	No	Tim	BF	R	6.02	39.2	7x3x¼	P
7	41Ha	4-5½	3050	160	227	23000	6600	B9.75/20	DB9.75/20	Her WXC	6-4x4½	Fu MGU	U 4	No	Tim	BF	R	6.83	43.8	7x3x¼	P
8	61Ha	5-7	3625	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6-4½x4½	Fu MGU	U 4	No	Tim	WF	R	8.5	55.2	8¼x3x⅜	P
9	71Ha	7-9	4595	164	235	29500	7800	B10.50/20	DB10.50/20	Her YXC	6-4⅜x4⅝	Fu VUOG	U 5	No	Tim	WF	R	8.5	55.2	8¼x3x⅜	P
10	TRHA	10	3645	148	174	35000	6250	B9.75/20	DB9.75/20	Her YXC3	6-4⅜x4¾	Fu VUOG	U 5	No	Tim	BF	R	7.8	55.1	7x3x¼	P
11	TRDA	10	3895	148	174	39000	6450	B9.75/20	DB9.75/20	Her YXC3	6-4⅜x4¾	Fu VUOG	U 5	No	Wis	2F	R	7.8	56.8	7x3x¼	P
12	Atterbury A	1	1095	132	145	7000	3400	P30x5	P30x5	Lyc WTG	6-3x4¾	Wa T9	U 4	No	Tim 51000H	BF	H	6.20	39.7	5¾x3¾x¼	N
13	K	1½	1595	145	160	8000	3640	P32x6	P32x6	Lyc WTG	6-3x4¾	Wa T9	U 4	No	Tim 52200H	BF	H	6.50	39.7	5¾x3¾x¼	N
14	G	2	1985	160	160	10000	3955	P32x6	DP32x6	Lyc 4SL	6-3¼x4½	Co F4B	U 4	No	Tim 54200H	BF	H	6.80	45.1	5¾x3¾x¼	N
15	45	2-2½	2375	175	188	12000	5300	B7.50/20	DB7.50/20	Lyc ASD	6-3⅝x4½	Co W4C	U 4	No	Tim 54200H	BF	H	6.80	39.8	7x3¼x¼	N
16	50	2½-3	2950	189	202	14000	5800	B8.25/20	DB8.25/20	Lyc ASD	6-3¾x4½	Co W4C	U 4	No	Tim 56200H	BF	H	7.40	43.3	7x3¼x¼	N
17	R	3	3700	173	199	16040	7250	P34x7	DP34x7	Con 18R	6-4x4½	BL 35-4	U 4	No	Tim 65001H	WF	H	7.1	37.4	7x3¼x¼	N
18	60	3	3150	190	215	16000	6000	B9.00/20	DB9.00/20	Lyc ASD	6-3¾x4½	CoW4C	U 4	No	Tim 58200H	BF	H	7.80	45.6	7x3¼x¼	N
19	65	3-3½	4050	209	221	18500	7800	B9.00/20	DB9.00/20	Con 18R	6-4x4½	BL 51-5	U 5	No	Tim 65200H	WF	R	7.50	40.1	8x3¼x¼	N
20	70	3½-4	4850	222	222	23000	8400	B9.75/20	DB9.75/20	Con 20R	6-4½x4¾	BL 51-5	U 5	No	Tim 65720H	WF	R	8.50	62.9	8x3¼x¼	N
21	C	3½	4750	186	220	19315	8300	B36x8	DP36x8	Con 20R	6-4½x4¾	BL 51-5	U 4	No	Tim 65706D	WF	H	7.25	38.8	8x3¼x¼	N
22	100	5-6	5675	223	237	28000	9100	B10.50/20	DB10.50/20	Con 21R	6-4⅝x4¾	BL 55-7	A 7	No	Tim66720DH	WF	R	9.0	85.5	9x3½x¼	N
23	Autocar R	1½	2250	159	187	.....	5370	B7.00/20	DB7.00/20	Own R	6-3¾x4¾	BL 234	U 4	No	Own A	SF	H	5.22	33.5	6⅞x3x⅜	T
24	RF	2	2450	159	189	.....	5750	B8.25/20	DB8.25/20	Own R	6-3¾x4¾	Own T	U 4	No	Own A	SF	H	5.22	33.0	6⅞x3x⅜	T
25	RG	2½	2600	159	210	.....	5975	P34x7	DP34x7	Own R	6-3¾x4¾	Own T	U 4	No	Own D	2F	H	6.21	39.3	8x3¼	T
26	A	2½	3000	150	192	.....	6350	B8.25/20	DB8.25/20	Own SD	6-4x4¾	Own T	U 4	No	Own A	SF	H	5.22	33.0	8x3¼	T
27	D	3	3500	150	192	.....	6375	P34x7	DP34x7	Own SD	6-4x4¾	Own T	U 4	No	Own D	2F	H	6.21	39.3	8x3¼	T
28	DE	3½	3850	150	210	.....	7000	B9.00/20	DB9.00/20	Own SD	6-4x4¾	Own T	U 4	No	Own TE	2F	H	6.43	40.7	8x3¼	T
29	DF	3½	3950	150	192	.....	7075	B9.00/20	DB9.00/20	Own SD	6-4x4¾	Own T	U 4	No	Own TE	2F	H	6.43	40.7	8x3¼	T
30	(Eng. und. seat) HS	3½	4600	114	161	.....	7900	P40x8	DP40x8	Own M	4-4½x5½	Own T	U 4	No	Own C	2F	H	8.57	54.3	7x2½x¼	T
31	" " " SHS	3½	4800	114	161	.....	7900	P40x8	DP40x8	Own SCH	6-4¼x4¾	Own T	U 4	No	Own C	2F	H	8.57	54.3	7x2½x¼	T
32	DH	4	4150	150	174	.....	7250	P36x8	DP36x8	Own SD	6-4x4¾	Own T	U 4	No	Own N	2F	H	8.57	54.3	8x3¼	T
33	N	4	4600	191	227	.....	8090	B9.75/20	DB9.75/20	Own SCH	6-4¼x4¾	Own T	U 4	No	Own N	2F	H	7.20	45.6	9x3¼	T
34	NE	5	4725	149	170	.....	8300	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own D	U 5	No	Own C	2F	H	8.57	50.1	8x3¼	T
35	NF	5	4800	191	227	.....	8350	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own D	U 5	No	Own TF	2F	H	7.20	42.1	9x3¼	T
36	NH	5	4925	149	170	.....	8440	B9.75/22	DB9.75/22	Own SCM	6-4½x4¾	Own D	U 5	No	Own C	2F	H	8.57	50.1	8x3¼	T
37	S	5	5500	158	168	.....	8800	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own T	U 4	A 3	Own CG	2F	H	8.52	54.0	9x3x¼	T
38	SE	6	5800	158	168	.....	8950	B10.50/22	DB10.50/22	Own SCM	6-4½x4¾	Own T	U 4	A 3	Own CG	2F	H	8.52	54.0	9x3x¼	T
39	C	7½	6600	158	176	.....	10950	B10.50/24	DB10.50/24	Own SCM	6-4½x4¾	BL 734	U 4	A 3	Wis 78720	2F	H	9.92	121.	10½x3x⅜	T
40	CF	7½	6900	164	182	.....	11280	B10.50/24	DB10.50/24	Wau 6RB	6-5x5¾	BL 734	U 4	A 3	Own TG	2F	H	7.20	88.5	9x3x¼	T
41	T	7½	6000	192	242	.....	9975	B10.50/22	DB10.50/22	Own SCM	6-4½x4¾	Own T	U 4	A 3	Own TG	2F	H	7.20	87.6	10½x3x⅜	T
42	TE	8½	6500	189	207	.....	10700	B10.50/24	DB10.50/24	Own SCM	6-4½x4¾	BL 734	U 4	A 3	Own TG	2F	H	7.20	87.6	10½x3x⅜	T
43	TF	8½	6800	195	247	.....	10950	B10.50/24	DB10.50/24	Wau 6RB	6-5x5¾	BL 734	U 4	A 3	Own TG	2F	H	7.20	87.6	10½x3x⅜	T
44	(T) FE	20	9500	180	180	.....	12300	B10.50/24	DB10.50/24	Ste LT	6-5¼x6	BL 734	U 4	A 3	Wis 79731	2F	H	7.9	96.0	10½x3x⅜	T
45	Available W140	2	1350	168	182	11200	4000	B7.00 20	DB7.00/20	Wau ZK	6-3⅜x4½	WG T9	U 4	No	Tim 53200	SF	R	6.6	42.2	10x2½x⅜	T
46	W200	2½	1850	168	182	13400	4500	B7.50/20	DB7.50/20	Wau TL	6-3⅜x4¾	BL 224	U 4	No	Tim 54300	SF	R	6.8	43.5	10x2½x⅜	T
47	W230	2½-3	2075	182	196	16300	5300	B8.25/20	DB8.25/20	Wau 6-90	6-3¾x4¾	BL 234	U 4	No	Tim 56200	SF	R	7.4	47.4	12x2½x¾	T
48	W300	3	2700	182	196	20700	6000	B9.00/20	DB9.00/20	Wau 6-110	6-4x4¾	BL 524	U 4	No	Tim 58200	SF	R	7.8	56.8	12x2½x¼	T
49	T35	3-3½	3125	Op	Op	20700	7400	B9.00/20	DB9.00/20	Wau MK	6-4⅛x4¾	BL 554	U 4	No	Tim 58200H	SF	R	7.8	54.5	7x2½x⅝	P
50	T39	3½	3650	Op	Op	25500	8000	B9.75/20	DB9.75/20	Wau 8RL	6-4⅜x5½	BL 615	U 5	No	Tim 65720H	WF	R	8.5	55.6	7x2½x⅝	P
51	T43	3½-4	3850	Op	Op	25500	8150	B9.75/20	DB9.75/20	Wau 8RK	6-4⅝x5½	BL 60	A 7	No	Tim 65720H	WF	R	8.5	80.7	7x2½x⅝	P
52	T45	4	4985	Op	Op	27000	8800	B9.75/20	DB9.75/20	Wau 6AB	6-4½x5¾	BL 70-7	A 7	No	Tim 65720H	WF	R	8.5	80.7	7x2½x⅝	P
53	T50	5	5350	Op	Op	33000	9800	B9.75/20	DB9.75/20	Wau 6RB	6-5x5¾	BL 714-703	A 4	A 3	Tim 66720H	WF	R	9.5	90.0	7x2½x⅝	P
54	Biederman 10	1-1½	895	130	160	6000	2800	B6.50/18	B6.50/18	Con 25A	6-3⅜x4	BL 124	U 4	No	Cla B373	BF	R	5.10	31.6	7x3x⅛	T
55	20	1-1½	1195	145	175	8000	3200	B6.00/20	DB6.00/20	Con 25A	6-3⅜x4	BL 124	U 4	No	Cla B373	BF	R	6.37	39.4	7x3x⅛	T
56	25	1½-2	1250	160	175	10000	3450	B6.50/20	DB6.50/20	Con 25A	6-3⅜x4	BL 124	U 4	No	Cla B373	BF	R	6.37	39.4	7x3x⅛	T
57	30	1½-2	1495	163	178	12000	4100	B7.50/20	DB7.50/20	Con 25A	6-3⅜x4	BL 124	U 4	No	Cla B611	BF	R	6.37	39.4	7.3x¼	T
58	35	2-2½	1850	146	188	12000	4680	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Cla B611	BF	R	6.37	40.8	7x3x¼	T
59	40	2½-3	2100	158	188	16000	4840	B8.25/20	DB8.25/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Cla B611	BF	R	6.37	40.8	8x3¼	T
60	50	2½-3	2400	176	188	20000	5600	B9.00/20	DB9.00/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Cla B805	BF	R	6.42	41.2	8x3¼	T
61	55	3-3½	2750	180	200	20000	6450	B9.00/20	DB9.00/20	Con E602	6-4⅛x4½	BL 524	U 4	Op	Cla B805	BF	R	6.42	46.7	8x3x¼	T
62	60	3½-5	3150	170	207	24000	6820	B9.75/20	DB9.75/20	Con E602	6-4⅛x4½	BL 524	U 4	Op	Cla B805	BF	R	7.17	52.1	8x3x¼	T
63	70	3½-5	3600	150	210	24000	7530	B9.75/20	DB9.75/20	Con E602	6-4⅛x4½	BL 524	U 4	Op	Wis 1237	2F	R	8.00	58.7	8x3½x¼	T
64	80	5-7	3900	150	210	28000	7800	B10.50/20	DB10.50/20	Con E603	6-4¼x4½	BL 524	U 4	Op	Wis 1237	2F	R	8.94	65.1	8x3½x¼	T
65	Brockway 80C	1½-2	1215	149	168	9500	4075	B6.00/20	DB6.00/20	Con 26B	6-3⅜x4	Wa T9	U 4	No	Tim 53200BY	SF	H	5.66	36.2	5⅝x2½x½	C
66	92C	2	1800	149	168	12500	4450	P32x6	DP32x6	Con 27B	6-3⅜x4⅝	Wa T9	U 4	No	Tim 54200H	SF	R	5.83	37.4	7⅞x2½x⅜	T
67	120C	2-3	1990	156	188	15000	5500	P32x6	DP32x6	Con 30B	6-4x4⅛	BL 314	U 4	No	Tim 54300H	SF	H	5.85	38.5	7½x3x¼	T
68	90C	2-2½	1525	149	168	12500	4355	B6.50/20	DB6.50/20	Con 27B	6-3⅜x4⅝	Wa T9	U 4	No	Tim 54200H	SF	H	5.83	37.4	7⅞x2½x⅜	T
69	140C	2½-3½	2495	156	200	17500	6100	P32x6	DP32x6	Con 30B	6-4x4⅛	BL 314	U 4	Op	Wis 4916L	2F	R	6.66	43.5	7½x3x¼	T
70	150C	2½-3½	(2)	156	200	16300	5800	B8.25 20	DB8.25 20	Con E600	6-3⅛x4½	BL 334	U 4	Op	Tim 56200H	SF	R	5.71	35.0	8x3x¼	T
71	141C	3-4	2935	170	212	19500	6500	P32x6	DP32x6	Con 30B	6-4x4⅛	BL 314	U 4	Op	Wis 70000L	2F	R	7.0	46.2	8x3x¼	T
72	170C	3-4	3160	170	212	19500	7100	P32x6	DP32x6	Con 33B	6-4⅛x4¾	BL 534	U 4	Op	Wis 70000L	2F	R	6.28	39.9	8x3x¼	T
73	175C	3-4	3660	170	224	19500	7200	P34x7	DP34x7	Con 34B	6-4⅜x4¾	BL 525	U 5	Op	Wis 70000L	2F	R	6.41	46.1	8x3x¼	T
74	195C	5	3820	170	224	24000	8100	P34x7	DP34x7	Con 33B	6-4⅛x4¾	BL 534	U 4	Op	Wis 1237H	2F	R	6.39	40.6	8¼x3x⅜	T
75	220C	7½	4560	170	224	28000	8675	P36x8	DP36x8	Con 34B	6-4⅜x4¾	BL 534	U 4	Op	Wis 1627KH	2F	R	6.96	44.2	8¼x3x⅜	T
76	260C	7½-10	5850	212	240	30000	9000	B10.50/22	DB10.50/22	Con 35B	6-4½x5½	Fu MHU	U 4	Op	Wis 1737KH	2F	R	8.05	50.7	8¼x3x⅜	T
77	Chevrolet Comm'l	1½	355	109	109	4000	1935	B5.25/18	B5.25/18	Own	6-3⅛x3¾	Own	U 3	No	Own	S1½	U	4.1	13.0	5x2¼x⅛	C
78	Utility	1½	520	131	131	7400	2730	P30x5	P32x6	Own	6-3⅛x3¾	Own	U 4	No	Own	S1½	U	5.43	39.1	6x2¼x⅛	C
79	Utility	1½	575	157	157	8200	2930	P30x5	DP32x6	Own	6-3⅛x3¾	Own	U 4	No	Own	S1½	U	5.43	39.1	7x2¾x⅛	C
80	Chicago 1-15-E	2	1395	150	174	12000	4200	B6.50/20	DB6.50/20	Wau ZK	6-3⅜x4½	BL 224	U 4	No	Tim 53200H	BF	R	6.6	40.9	7x4x¼	T
81	1-25-E	2½	1885	160	208	14000	5100	B7.00/20	DB7.00/20	Wau TK	6-3⅝x4¾	BL 224	U 4	No	Tim 54200H	BF	R	6.8	42.0	7x4x¼	T
82	1-30-E	3	2250	160	208	15000	5400	B7.50/20	DB7.50/20	Wau MK	6-4½x4¾	BL 314	U 4	No	Tim 56200H	BF	R	6.2	41.0	7x4x¼	T
83	1-35-E	4	2600	160	208	18000	5800	B8.25/20	DB8.25/20	Wau MK	6-4½x4¾	BL 314	U 4	No	Tim 58200H	BF	R	6.8	44.9	7x4x¼	T
84	1-50-B	6	3950	140	236	24000	7780	B9.75/20	DB9.75/20	Wau 6SRL	6-4⅝x5½	BL 60 Max	A 7	No	Tim 65720H	WF	R	7.75	73.6	6x3½x⅜	T
85	Coleman E52	2½	3800	20	144	12800	7200	B9.00/24	B9.00/24	Bud K393	6-4¼x4¾	Fu RU16	U 4	A 2	Wis CR15	2F	H	Op	Op	10x2½x⅝	B
86	(All 4 Wh. Dr.) E53	3½	5300	30	180	15900	8000	B9.75/24	B9.75/24	Bud K428	6-4⅝x4¾	Fu MRU16	U 4	A 2	Wis CR26	2F	H	Op	Op	12x2½x⅝	B
87	E54	4-5	5600	30	180	20400	8800	B10.50/24	B10.50/24	Bud L468	6-4¼x5½	Fu MRU16	U 4	A 2	Wis CR30	2F	H	Op	Op	12x2½x1⅛	B
88	E55	5	6150	30	180	23000	9600	B11.25/24	B11.25/24	Bud L525	6-4½x5½	Fu MRU16	U 4	A 2	Wis CR30	2F	H	Op	Op	12x2½x1⅛	B
89	E55S	5-6	7200	44	180	24500	10600	B11.25/24	B11.25/24	Bud L525	6-4½x5½	Fu MRU16	U 4	A 2	Wis CR122	2F	H	Op	Op	12x2¾x1¼	B
90	E56	6-7½	7800	44	180	29800	11600	B10.50/24	DB10.50/24	Bud GF6	6-4¾x6	Fu MHU	U 4	A 2	Wis CR122	2F	H	Op	Op	12x2¾x1¼	B
91	E57	7½-10	9700	44	180	32000	12400	B11.25/24	DB11.25/24	Ste LT6	6-5¼x6	BL 714	U 4	A 2	Wis CR122	2F	H	Op	Op	16x3x1¼	B
92	Corbitt 8B4	1½	980	134	134	8500	3200	B6.00/20	P32x6	Con W10	4-3⅞x4¼	Ow 8T	U 4	No	Own 8R	SF	H	5.4	38.4	5⅝x3x¼	P
93	8B6	1½	1080	136	136	8500	3275	B6.00/20	P32x6	Con 25A	6-3⅝x4	Ow 8T	U 4	No	Own 8R	SF	H	5.4	38.4	5⅝x3x¼	P
94	10B6	1½-2	1310	171	191	11200	3950	B6.50/20	DB6.50/20	Con 25A	6-3⅜x4	BL 214	U 4	No	Tim 53200H	SF	H	Op	Op	5½x3½x¼	T
95	9B6	1½-2½	2185	152	183	13400	4200	P32x6	DP32x6	Con 16C	6-3⅜x4⅝	BL 224	U 4	No	Tim 54200H	SF	H	5.57	27.8	7x3½x¼	T
96	12B6	2-3	3060	163	220	16300	4870	B7.50/20	DB7.50/20	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 56200H	SF	H	Op	Op	7x3½x¼	T
97	12W6	2-3	2950	165	220	16300	4910	B7.50/20	DB7.50/20	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 64800H	WF	H	Op	Op	7x3½x¼	T
98	15B6	2½-3½	3740	174	220	20700	5870	P34x7	DP34x7	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 58200H	SF	H	Op	Op	7x3½x¼	T
99	15W6	2½-3½	3850	183	224	20700	6160	P34x7	DP34x7	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 65200H	w/2F	H	Op	Op	7x3½x¼	T
100	18	2½-4	4400	178	230	25300	8100	P36x8	DP36x8	Con E602	6-4¼x4½	BL 334	U 4	No	Tim 65720H	w/2F	H	Op	Op	8x3½x¼	T
101	24	3½-5	5115	195	230	32000	9200	B9.75/20	DB9.75/20	Con E603	6-4¼x4½	BL 60	A 7	No	Tim66720H	w/2F	H	Op	Op	8x3½x¼	T
102	33	5-7½	6160	195	230	41000	10000	P40x10	DP40x10	Con 21R	6-4⅝x4¾	BL 60 Max	A 7	No	Tim68720TW	w/2F	H	Op	Op	8x3x⅜	T
103	(T) 10B6T	3-5	1650	(3)	(3)	16500	3950	B6.50/20	DB6.50/20	Con 16C	6-3⅜x4⅝	BL 224	U 4	No	Tim 53200H	SF	H	Op	Op	5½x3½x¼	T
104	(con't) (T) 9B6T	4-6	2600	(3)	(3)	19700	4200	B7.50/20	DB7.50/20	Con E601	6-4¼x4½	BL 334	U 4	No	Tim 54200H	SF	H	Op	Op	7x3½x¼	T

TRUCK SPECIFICATIONS TABLE

+ FOR MEANING OF ABBREVIATIONS AND EXPLANATION OF REFERENCE MARKS SEE PAGE 58

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	468	4.4	322	43.3	120–2200	H	C	A	4–2¾	10¾	CC	Ha	Zen	V	DR	DR	P.BL	Lo	Spi	Tim 27451	Ros	O4IA	720	A	CD	172	102	33½	42x3	56x4	½
2	707	4.4	500	60.	175–2200	H	C	A	7–3¼	14⅜	CC	Ha	Zen	M	DR	DR	dpLo	Lo	Spi	Tim 27451	Ros	O4IA	720	A	CD	172	102	33½	42x3	56x4	½
3	707	4.4	500	60.	175–2200	H	C	A	7–3¼	14⅜	CC	Ha	Zen	M	DR	DR	dpLo	Lo	Spi	Tim 27451	Ros	O4IA	816	A	CD	172	102	33½	42x3	56x4	½
4	248	5.0	150	27.3	65–2600	L	G	C	7–2⅜	10⅜	PC	No	Zen	M	DR	DR	P.BB	Yo	Spi	Tim	Ros	L4IH	380	G	TX	129½	Opt	31½	40x2½	50x3	½
5	298	4.7	192	33.7	66–2200	L	G	C	7–2⅝	13¼	PC	Mo.	Zen	M	AL	AL	D.BB	Yo	Spi	Tim	Ros	L4IHV	452	G	TX	129½	Opt	31½	40x2½	50x3	½
6	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	578	G	TX	106	Opt	31½	40x2½	62¾x2½	½
7	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	658	G	TX	118	Opt	31½	40x2½	62¾x2½	N
8	360	4.7	238	40.3	80–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	768	G	TX	106	Opt	31½	41x2½	62¾x2½	N
9	428	4.7	280	46.	93–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	G	TX	118	Opt	31½	41x2½	62¾x3	N
10	478	4.7	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	658	G	TX	91¾	Opt	31½	41x2½	62¾x3	N
11	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	658	G	TX	92⅞	Opt	31½	41x2½	62¾x3	N
12	201	5.5	142	21.6	64–2800	L	G	C	4–2⅛	9⅛	CC	Ha	Zen	G	DR	DR	P.BB	Fe	Spi	Tim 11710H	Gem	L4IH	424	p	T	96	53½	34	38x2¼	50x2½	N
13	201	5.5	142	21.6	64–2800	L	G	C	4–2⅛	9½	CC	Ha	Zen	G	DR	DR	P.BB	Fe	Spi	Tim 11710H	Ros	L4IH	437	p	T	118	66½	34	38x2¼	50x2½	N
14	224	4.9	146	25.3	62–2800	L	G	C	4–2⅛	9½	CC	Ha	Zen	G	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IH	450	p	T	142	81½	34	38x2½	50x7½	½
15	298	5.0	198	33.7	85–3000	L	G	C	4–2¾	10½	CC	Ha	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IH	450	e	T	149	92	34	39x2½	56x3	½
16	298	5.0	198	33.7	85–2800	L	G	C	4–2¾	10⅛	CC	Ha	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 33010H	Ros	L4IH	540	e	T	173	105	34	39x2½	56x3	½
17	339	4.6	212	38.4	82–2400	H	C	B	7–2¾	13⅛	PC	Ha	Zen	V	DR	AL	D.BL	Yo	Spi	Tim 14703H	Ros	L4IHV	275	p	T	148½	90½	34	41½x3	54x3½	½
18	298	5.0	198	33.7	85–2800	L	G	C	4–2⅝	10⅛	CC	Ha	Zen	M	AL	AL	D.BL	Pe	Spi	Tim 33010H	Ros	L4IH	657	e	T	173	106	34	39x2½	56x3	½
19	339	4.6	212	38.4	81–2500	H	C	C	7–2¾	13⅛	FP	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 35000H	Ros	L4IH	657	e	T	197	119	34	40x3	56x3	½
20	381	4.5	238	40.8	87–2400	H	C	C	7–2¾	13⅛	FP	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 35000H	Ros	L4IH	765	e	T	221	132	34	40x3	56x3½	½
21	381	4.5	238	40.8	82–2400	H	C	B	7–2¾	13⅛	PC	Ha	Zen	V	DR	AL	D.BL	Yo	Spi	Tim 15302	Ros	T2IMV	500	e	T	169½	103½	34	41½x3	54x3½	½
22	428	4.9	268	45.9	101–2400	H	C	C	7–2¾	13⅛	FP	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 26450H	Ros	L4IH	864	e	F	221	133	34	40x3	56x4	½
23	314	5.2	213	33.7	75–2400	L	G	C	7–3	12⅝	FP	No	Str	M	DR	DR	P.BL	GO	Spi	Tim 31000	Ros	LO4ID	450	e	2I	124¼	72⅝	34	40x2½	54x3	½
24	314	5.2	213	33.7	75–2400	L	G	C	7–3	12⅝	FP	No	Str	M	DR	DR	P.BL	GO	Spi	Tim 31000	Ros	LO4ID	450	e	2I	124¼	72⅝	34	40x2½	54x3	½
25	314	5.2	213	33.7	75–2400	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	P.BL	GO	Spi	Tim 31000	Ros	LO4ID	450	e	2I	124¼	72⅝	34½	40x2½	54x3	½
26	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 33000	Ros	LO4IDV	450	e	2I	115¼	63⅝	34½	40x2½	54x3	½
27	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 33000	Ros	LO4IDV	450	e	2I	115¼	63⅝	34½	40x2½	54x3	½
28	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 33000	Ros	LO4IDV	519	e	2I	115¼	63⅝	34½	40x2½	54x3	½
29	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 35000	Ros	LO4IDV	519	e	2I	115¼	63⅝	34½	42½x3	54x3	½
30	350	4.6	218	32.4	45–1450	L	G	A	2–2¾	B	SP	Ow	Str	G	AB	LN	dpLo	Ow	Spi	Own J	Ros	O2IM	506	e	2I	135½	76	34½	41x2¼	53x3	½
31	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	G	DR	DR	dpLo	Ow	Spi	Own J	Ros	O2IM	506	e	2I	135½	76	34½	41x2¼	53x3	½
32	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 35000	Ros	LO4IDV	519	e	2I	115¼	63⅝	34½	42½x3	54x3	½
33	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 35000	Ros	LO4IDV	519	e	FD	174⅝	104½	34½	40x2½	54x3	½
34	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 35000	Ros	LO4IDV	519	e	FD	110	62	34½	40x2½	54x3	½
35	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 35000	Ros	LO4IDV	519	e	FD	174⅝	104½	34½	40x2½	54x3	½
36	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 35000	Ros	LO4IDV	519	e	FD	110	62	34½	40x2½	54x3	½
37	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 26450	Ros	LO4IDV	544	e	FD	122½	74½	34½	42½x3	54¾x4	½
38	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 26450	Ros	LO4IDV	544	e	FD	122½	74½	34½	42½x3	54¾x4	½
39	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 26450	Ros	LO4IDV	664	e	FD	121¾	73¾	34½	42½x3	54¾x4	½
40	677	4.6	462	60.0	126–1800	L	G	A	4–3½	11⅜	PC	Wa	Str	M	DR	DR	dpBL	GO	Spi	Tim 27450	Ros	LO4IDV	664	e	FD	122⅜	74⅜	34½	42½x3	54¾x4	½
41	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 26450	Ros	O4IA	544	e	FD	175½	105	34½	42½x3	54¾x4	½
42	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dpLo	GO	Spi	Tim 26450	Ros	O4IA	544	e	FD	223	104¾	34½	42½x3	54¾x4	½
43	677	4.6	462	60.0	126–1800	L	G	A	4–3½	11⅜	PC	Wa	Str	M	DR	DR	dpBL	GO	Spi	Tim 27450	Ros	O4IA	544	e	FD	175½	105⅝	34½	42½x3	54¾x4	½
44	780	4.7	475	66.1	156–1800	L	G	A	7–3	16½	FP	St	Ze2	M	NE	LN	dpBL	GO	Spi	Tim 27450	Ros	Ws4IA	664	e	FD	114¾	84	34½	42½x3	54¾x4	½
45	221	4.9	144	27.3	63–3000	L	G	C	4–2¾	6⅞	FP	No	Sch	M	DR	DR	P.Jo	Ch	Blo	Tim 30000H	Ros	L4IH	269	a	TX	120	82½	32	42½x2¼	58x2½	N
46	255	5.1	175	27.3	69–2600	L	G	C	4–2¾	7⅜	FP	No	Sch	M	DR	DR	P.BL	Ch	Blo	Tim 31000H	Ros	L4IH	330	a	TX	120	82½	32	42½x2¼	58x2½	N
47	255	5.1	182	27.3	90–3200	F	G	A	4–2¾	6⅜	CC	Pe	Sch	M	DR	DR	P.BL	Ch	Blo	Tim 33000H	Ros	L4IH	330	a	TX	144	96½	32	42½x2½	58x3	N
48	358	5.1	254	38.4	110–2800	F	G	A	7–2¼	12½	CC	Pe	Sch	M	DR	DR	P.BL	Ch	Bao	Tim 35000H	Ros	L4IH	376	a	TD	144	96½	32	42½x2½	58x3	N
49	381	4.4	242	40.8	85–2500	L	G	C	7–2⅝	12⅓	CC	Wa	Sch	M	DR	DR	D.BL	Ch	Blo	Tim 35000H	Ros	L4IH	376	E	FD	Opt	Opt	32	40x2½	50x3	½
50	462	4.5	305	45.9	102–2400	L	G	C	7–3	13⅓	CC	Wa	Sch	M	DR	DR	D.BL	Ch	Blo	Tim 35000H	Ros	L4IHV	462	E	FD	Opt	Opt	32	40x2½	50x3	½
51	517	4.5	335	51.3	110–2300	L	G	C	7–3	13⅓	CC	Wa	Sch	M	DR	DR	D.BL	Ch	Blo	Tim 35000H	Ros	L4IHV	462	E	FD	Opt	Opt	32	40x2½	50x3	½
52	549	4.5	330	48.6	100–2000	L	G	C	4–3½	11⅓	CC	Wa	Sch	M	DR	DR	D.BL	Ch	Blo	Tim 26450H	Ros	L4IHV	486	E	FD	Opt	Opt	32	40x2½	50x3	½
53	677	4.4	440	60.0	125–1900	L	G	C	4–3½	11⅓	CC	Wa	Str	M	DR	DR	D.BL	Ch	Blo	Tim 26450H	Ros	L4IHV	486	E	FD	Opt	Opt	32	40x2½	50x3	½
54	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6¾	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F212	Ros	L4IH	312	p	G	TX	89	54	36	47x2¼	50x2½	N
55	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6¾	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F212	Ros	L4IH	312	p	G	TX	117	69	36	47x2¼	50x2½	N
56	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6¾	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F212	Ros	L4IH	312	p	G	TX	132	84	36	47x2¼	50x2½	N
57	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6¾	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F304	Ros	L4IH	414	p	G	TX	135	87	36	47x2¼	50x3	N
58	282	5.0	194	34.	84–2800	L	G	N	7–2½	10¼	CC	No	Zen	M	DR	DR	P.BL	Pe	MM	C1F304	Ros	L4IH	414	p	G	TX	114	66	36	47x2¼	50x3	N
59	282	5.0	194	34.	84–2800	L	G	N	7–2½	10¼	CC	No	Zen	M	DR	DR	P.BL	Pe	MM	C1F304	Ros	L4IH	414	p	G	TX	126	78	36	47x2¼	50x3	N
60	282	5.0	194	34.	84–2800	L	G	N	7–2½	10¼	CC	No	Zen	M	DR	DR	P.BL	Pe	MM	C1F318	Ros	L4IH	490	p	G	CX	144	96	36	47x2¼	60x3	N
61	361	4.6	240	40.	98–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	C1F318	Ros	L4IH	490	p	G	CX	147	99	36	47x2¼	60x3	N
62	361	4.6	240	40.	98–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	C1F318	Ros	L4IH	490	p	G	CX	137	89	36	47x2¼	60x3	N
63	361	4.6	240	40.	98–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	Tim 35120	Ros	L4IH	616	G	CX	104	69	36	47x2¼	60x3	N
64	383	4.6	252	44.	105–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	Tim 35120	Ros	L4IH	616	G	CX	104	69	36	47x2¼	60x4	N
65	214	4.9	142	27.3	72–3400	L	C	A	4–2⅜	6⅞	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 4006	Ros	B4IM	248	G	TX	111	65	34	37x2¼	52x2½	½
66	248	4.9	160	27.3	70–3200	L	C	C	7–2⅝	10⅞	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 5500A8	Ros	L4IH	353	G	CD	111	65	34	37x2¼	54x3	½
67	248	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	No	Zen	M	AL	AL	D.BL	GO	Spi	Col 5500A7	Ros	L4IH	353	G	CD	108	69	34	40x2½	54x2½	½
68	248	4.2	160	27.3	70–3200	L	C	C	7–2⅝	10⅞	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 5500A8	Ros	L4IH	353	G	CD	111	65	34	37x2¼	52x2½	½
69	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Col 5500A7	Ros	L4IHV	386	G	CD	108	69	34	40x2½	54x3	½
70	288	4.7	180	32.6	73–2700	L	G	N	7–2¾	11⅞	FP	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5582B	Ros	L4IHV	386	G	CD	108	69	34	40x2½	54x3	½
71	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5582B	Ros	L4IHV	380	G	CD	142	83	34	40x2½	54x3	½
72	381	4.4	236	40.8	89–2500	H	C	N	7–2¾	13⅛	FP	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34	40x2½	54x3	½
73	427	4.2	268	45.9	100–2400	H	C	N	7–2¾	13⅛	FP	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34	40x2½	54x3	½
74	381	4.4	236	40.8	89–2500	H	C	N	7–2¾	13⅛	FP	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34½	40x2½	54x3	½
75	427	4.2	268	45.9	100–2400	H	C	N	7–2¾	13⅛	FP	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34½	40x2½	54x3	½
76	501	4.3	340	48.6	120–2200	H	C	A	7–2¾	13⅞	CC	KP	Zen	M	AL	AL	D.Fu	GO	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	210	125	34¼	40x2½	54x3	½
77	194	5.2	130	26.3	53–2800	H	G	C	3–2⅛	5¼	PG	No	Car	M	DR	DR	P.Ow	Ha	Own	Own	Own	O4IM	101	p	2I	.....	27⅞	....	36x1¾	54x1¾	N
78	194	5.2	131	26.3	53–2800	H	G	C	3–2⅛	5¼	PG	No	Car	M	DR	DR	P.Ow	Ha	Own	Own	Own	O4IM	170	p	2I	85½	50¼	37	36x1¾	45x2½	N
79	194	5.2	131	26.3	53–2800	H	G	C	2–2⅛	5¼	PG	No	Car	M	DR	DR	P.Ow	Ha	Own	Own	Own	O4IM	170	p	2I	111½	76¼	37	36x1¾	45x2½	N
80	222	4.9	147	27.3	61–2800	L	G	C	4–2⅜	6⅞	FP	No	Zen	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L4IH	169	p	TX	Opt	70	33½	41½x2½	54x3	N
81	294	4.5	199	31.5	79–2700	L	G	C	4–2⅜	7	FP	Wa	Zen	M	DR	DR	D.BL	Ch	Spi	Tim 31000H	Ros	L4IH	281	e	TX	Opt	73	33½	41½x2½	54x3	N
82	381	4.4	242	40.8	85–2500	L	G	C	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	D.BL	Ch	Spi	Tim 31000H	Ros	L4IH	328	e	TX	Opt	85	33½	41½x2½	54x3	N
83	381	4.4	242	40.8	85–2500	L	G	C	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	D.BL	Ch	Spi	Tim 33020H	Ros	L4IHV	394	e	TX	Opt	97	33½	41½x2½	56x3	N
84	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	FP	Wa	Str	M	AL	AL	D.BL	Ch	Spi	Tim 26450	Ros	L2IH	311	e	TD	Opt	55	34	44½x2½	56x3	N
85	393	4.9	260	42.0	103–2600	L	G	C	7–3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF15	Ros	W2/4IM	238	P	TD	108	78	30	48x3	48x3	C
86	428	4.7	280	45.9	107–2600	L	G	C	7–3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF25	Ros	W2/4IM	238	P	TD	144	89	30	48x3	48x3	C
87	468	4.8	295	43.4	108–2200	L	G	C	7–3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF30	Ros	W2/4IM	238	P	TD	144	89	30	48x3	48x3	C
88	525	4.9	336	48.2	114–2200	L	G	C	7–3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF30	Ros	W2/4IM	238	P	TD	144	89	30	48x3	48x3	C
89	525	4.9	336	48.2	114–2200	L	G	C	7–3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF122	Ros	W2/4IM	252	G	TD	168	105	30	48x3½	52x3½	C
90	638	4.3	410	54.1	126–1850	L	G	C	4–3	10⅛	FP	Bu	Ste	M	DR	DR	D.Fu	Pe	Spi	Wis CF122	Ros	W2/4IM	252	G	TD	168	105	30	48x3½	52x3½	C
91	779	4.3	475	66.1	177–2200	L	G	A	7–3	13½	FP	St	Zen	P	NE	NE	dpBL	Pe	Spi	Wis CF122	Ros	O2/4IA	252	G	TD	Opt	105	30	48x4	52x4	C
92	200	4.7	125	24.0	49–2800	L	C	A	3–2⅛	5⅞	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Own 8F	Ros	L4IH	268	p	TX	96	53	34	38x2¼	50x2½	N
93	214	4.9	142	27.3	72–3200	L	C	A	4–2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Own 8F	Ros	L4IH	268	p	TX	96	55	34	38x2¼	50x2½	N
94	214	4.9	142	27.3	72–3200	L	C	A	4–2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 30020H	Ros	L4IH	287	p	TX	Opt	Opt	34	38x2¼	50x2½	½
95	248	5.0	150	27.3	70–3200	L	C	C	7–2⅝	10⅞	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	327	a	TX	Opt	Opt	34	38x2¼	54x3	½
96	318	4.6	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	345	a	TX	134	82	34	40x2½	54x3	½
97	318	4.6	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	345	a	TX	134	82	34	40x2½	54x3	½
98	318	4.5	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	660	a	TD	144	88	34	40x2½	54x3	½
99	318	4.5	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	660	a	TD	144	97	34	40x2½	54x3	½
100	360	4.4	240	40.8	90–2500	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	a	TD	132	92	34	40x2½	54x3	½
101	383	4.5	236	43.3	95–2500	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 26450H	Ros	T4IHV	876	a	TD	162	109	34	46x3	60x3½	½
102	427	4.2	268	45.9	112–2400	H	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim27450TW	Ros	T4IA	921	a	TD	162	109	34	46x3	56x4	½
103	248	5.0	150	27.3	70–3200	L	C	C	7–2⅝	10⅞	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 30020H	Ros	L4IHV	380	p	TX	(3)	(3)	34	38x2¼	50x2½	½
104	318	4.6	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IHV	452	a	TX	(3)	(3)	34	38x2¼	54x3	½

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	TIRE SIZE Front	Rear	MAJOR UNITS. ENGINE Make and Model	No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	Location and Forward Speeds	Aux. Location and Speeds	REAR AXLE Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS In High	In Low	FRAME Side Rail Dimensions	Type
1	Corbitt...(T)12B6T	4–7	3465	(3)	(3)	23900	4870	B8.25/20	DB8.25/20	Con E602	6–4 1/2 x 4 1/2	BL 335	U 4	No	Tim 56200H	SF	H	Op	Op	7x3 1/2 x 1/4	T
2	(conc'd)..(T)15B6T	5–8	4875	(3)	(3)	30400	5870	B9.00/20	DB9.00/20	Con E603	6–4 1/4 x 4 1/2	BL 335	U 5	No	Tim 58200H	SF	H	Op	Op	7x3 1/2 x 1/4	T
3	.....(T)18D6T	8–10	5500	(3)	(3)	36200	8100	B9.75/20	DB9.75/20	Con 22R	6–4 1/2 x 5 1/4	BL 535	U 5	No	Tim 75720H	2F	H	Op	Op	8x3 1/2 x 1/4	T
4	.....(T)24D6T	10–15	6500	(3)	(3)	50600	9200	B10.50/20	DB10.50/20	Con 16H	6–4 3/4 x 5 3/4	BL 7212	U 4	U3	Tim 66720W	2F	H	Op	Op	8x3 x 1/4	P
5	Dart.....30G	1 1/2–2	1595	150	180	11200	4900	B6.50/20	DB6.50/20	Her WXA2	6–3 1/2 x 4 1/2	Fu MLU	U4	No	Tim 53200H	BF	H	5.14	32.6	6x3x 1/4	P
6	.....40G	2	2195	150	180	13400	5650	B7.50/20	DB7.50/20	Her WXB	6–3 3/4 x 4 1/2	Fu MLU	U4	No	Tim 54200	BF	H	6.8	34.9	7x3x 1/4	P
7	.....50G	2 1/2–3	2725	150	180	16300	5750	B7.50/20	DB8.25/20	Her WXC2	6–4 1/8 x 4 1/2	Fu MLU	U4	No	Tim 56200	BF	H	6.16	31.6	7x3x 1/4	P
8	.....60G	3	3250	166	208	20700	7425	B8 25/20	DB9.00/20	Her WXC3	6–4 1/4 x 4 1/4	Fu JVUOG	U5	No	Tim 58200	BF	H	6.8	48.4	7x3x 1/4	P
9	.....80W	4	4450	170	220	25600	8500	B8.25/20	DB9.75/20	Her YXC2	6–4 1/2 x 4 3/8	Fu VUOG	U5	No	Tim 65720	WF	H	6.8	48.0	7x3x 1/4	P
10	.....100W	5	5500	170	235	33600	10500	B9.75/20	DB9.75/20	Her RXC	6–4 5/8 x 5 1/4	Fu MHU	U4	A 3	Tim 66720	WF	H	6.8	84.8	7x3x 1/4	P
11	.....150W	7 1/2	6500	170	245	46100	11500	B9.75/20	DB10.50/20	Her HXB	6–5x6	BL 735	U5	No	Tim 68720	WF	H	6.8	42.7	9x3 1/2 x 1/4	P
12	.....200W	10	8500	180	250	40400	12500	B9.75/20	DB10.50/20	Her HXB	6–5x6	BL 735	U5	No	Tim SW310	WF	H	6.8	42.7	9x3 1/2 x 1/4	P
13	(4 Whl. Dr.) . . 60	4	5750	180	200	19000	8700	B9.00/20	DB9.00/20	Her WXC3	6–4 1/4 x 4 1/2	Fu JVUOG	U5	A 2	Wis 69317B	DF	H	8 4	153	7x3x 1/4	P
14	(4 Whl. Dr.) . . . 80	6	6800	180	225	24000	11000	B9.75/20	DB9.75/20	Her RXC	6–4 5/8 x 5 1/4	Fu VUOG	U5	A 2	Wis 1237	DF	H	8.0	152	9x3 1/2 x 1/4	P
15	Day Elder(4) 60	1	895	135	156	6000	3300	B6.00/20	B6.50/20	Con 25A	6–3 3/8 x 4	WG T9	U 4	No	Tim 52200H	BF	H	5.66	36.3	5 1/2 x 3 3/4 x 1/4	C
16	85	1 1/2–2	1395	135	168	8500	3850	B6.00/20	DB6.50/20	Con 16C	6–3 1/2 x 4 5/8	WG T9	U 4	No	Tim 53200H	BF	H	6.60	42.3	5 1/2 x 3 3/4 x 1/4	C
17	110	2	1825	135	168	11000	4800	B7.00/20	DB7.00/20	Con 16C	6–3 3/4 x 4 5/8	WG T9	U 4	No	Tim 54200H	BF	H	6.80	44.9	7x3 3/4 x 1/4	C
18	130	2 1/2	2225	157	199	13000	6600	B7.50/20	DB7.50/20	Con 16R	6–4x4 1/2	BL 51	U 4	No	Tim 56200H	BF	H	6.16	40.7	7x4x 1/4	C
19	160	3	2795	156	204	16000	6800	B7.50/20	DB9.00/20	Con 18R	6–4x4 1/2	BL 51	U 4	No	Tim 65200H	WF	R	6.75	36.1	9x3 1/2 x 1/4	C
20	200	4	3295	156	204	20000	7600	B9.00/20	DB9.00/20	Con 18R	6–4x4 1/2	BL 554	U 4	No	Tim 65720H	WF	R	7.75	43.5	9x3 1/2 x 1/4	C
21	240	5	4295	162	202	24000	9500	P38x9	DP38x9	Con 21R	6–4 3/8 x 4 3/8	BL 535	A 5	No	Tim 66720H	WF	R	9.50	50.8	10x3 3/4 x 1/4	C
22	Diamond T. . 210SF	1 1/2	545	135	158	8500	3100	B5.50/20	B6.50/20	Her JXA	6–3 5/8 x 4 1/4	WG T9	U 4	No	Cla B364	S 1/2	H	5.4	34.6	6 3/4 x 2 1/2 x 1/2	T
23	.....210FF	1 1/2	565	135	158	8500	3100	B5.50/20	B6.50/20	Her JXA	6–3 5/8 x 4 1/4	WG T9	U 4	No	Cla B373E	SF	H	Opt	Opt	6 3/4 x 2 1/2 x 1/2	T
24	.....240A	1 3/4	795	137	167	10000	3500	B6.00/20	P32x6	Her JXA	6–3 5/8 x 4 1/4	WG T9	U 4	No	Cla B410	SF	H	Opt	Opt	7x3x 1/2	T
25	310	2	995	155	179	12000	4200	B6.50/20	DB6.50/20	Her JXB	6–3 5/8 x 4 1/4	WG T9	U 4	No	Cla B613	SF	H	Opt	Opt	7x3x 1/2	T
26	350	2 1/2	1295	155	179	14000	4700	B7.00/20	DB7.00/20	Her JXC	6–3 3/4 x 4 3/4	Cla R103	U 5	No	Cla B642	SF	H	Opt	Opt	7x3x 1/2	T
27	.....410A	3	1695	160	194	15000	5400	B7.50/20	DB7.50/20	Her WXC	6–4x4 1/2	Co W5B	U 5	No	Cla B642	SF	H	Opt	Opt	6 1/2 x 3 1/4	P
28	.....410B	3	2135	200	204	15000	6200	B7.50/20	DB7.50/20	Her WXC	6–4x4 1/4	Co RUS4C	U 4	No	Cla B642	SF	H	Opt	Opt	6 1/2 x 3 1/4	P
29	.....504A	3	2650	166	208	17500	6420	B8.25/20	DB8.25/20	Her WXC	6–4x4 1/2	Co RUS4C	U 4	No	Wis 69317 BL	2F	R	Opt	Opt	6 1/2 x 3 1/4	P
30	.....(N) 506A	3	2950	174	240	17500	6600	B8.25/20	DB8.25/20	Her WXC3	6–4 1/4 x 4 1/2	Co RU5C	U 5	No	Wis 69317 BL	2F	R	Opt	Opt	6 1/2 x 3 1/4	P
31	603	3–4	3395	169	230	20000	7540	B9.00/20	DB9.00/20	Her YXC	6–4 5/8 x 4 3/4	Co RU5C	U 5	Op	Wis 1237H	2F	R	Opt	Opt	6 1/2 x 3 1/4	P
32	.....(N) 606B	3–4	3695	179	246	20000	7600	B9.00/20	DB9.00/20	Her RXB	6–4 1/2 x 5 1/4	Co RU5C	U 5	No	Wis 1237H	2F	H	Opt	Opt	6 1/2 x 3 1/4	P
33	510	4	1995	168	201	18000	6000	B7.00/20	DB8.25/20	Her WXC	6–4x4 1/2	Co RUS4C	U 4	No	Tim 58205H	SF	H	Opt	Opt	6 1/2 x 3 1/4	P
34	750	4–5	4925	178	238	24000	9300	B9.75/22	DB9.75/22	Her RXC	6–4 5/8 x 5 1/4	Co SA5	A 5	Op	Wis 1737 KW	2F	R	Opt	Opt	7 1/2 x 3 1/2 x 1/4	P
35	Differential. . E-131	2 1/2	3200	160	160	18100	5100	B9.00/20	DB9.00/20	Lyc ASD	6–3 3/4 x 4 1/2	BL 314	U 4	No	Tim 58200	BF	H	7.8	51.4	12x2 1/2 x 1/4	P
36	Dodge Bros. . UF-10	1/2	375	109	109	4025	1925	B5.00/19	B5.00/19	Own	4–3 5/8 x 4 3/4	Own	U 3	No	Own	S 1/2	H	4.66	13.9	5x1 1/4 x 1/4	C
37	.....F-10	1/2	445	109	109	4125	1975	B5.25/19	B5.25/19	Own	6–3 1/4 x 4 1/4	Own	U 3	No	Own	S 1/2	H	4.66	13.9	5x1 1/4 x 1/4	C
38	.....	3/4–1	490	124	124	4760	2260	B6.00/20	B6.00/20	Own	4–3 5/8 x 4 1/4	Own	U 3	No	Own	S 1/2	H	5.63	21.1	6x2 3/4 x 1/4	C
39	.....	3/4–1	595	124	124	4860	2360	B6.00/20	B6.00/20	Own	6–3 5/8 x 3 1/2	Own	U 3	No	Own	S 1/2	H	5.11	19.2	6x2 3/4 x 1/4	C
40	.....UG20	3/4–1	537	131	157	5900	2450	B7.50/17	B7.50/17	Own	4–3 5/8 x 4 3/4	Own	U 4	No	Own	SF	H	5.85	36.1	7x2 1/4 x 1/4	C
41	.....G20	3/4–1	597	131	157	5975	2520	B7.50/17	B7.50/17	Own	6–3 1/4 x 4 1/4	Own	U 4	No	Own	SF	H	5.85	36.1	7x2 1/4 x 1/4	C
42	.....	1–1 1/2	495	133	133	5840	2590	P6.00/20	P32x6	Own	4–3 5/8 x 4 1/4	Own	U 4	No	Own	S 1/2	H	5.6	36.1	6x2 3/4 x 1/4	C
43	.....	1–1 1/2	595	133	133	5940	2690	P6.00/20	P32x6	Own	6–3 5/8 x 3 1/2	Own	U 4	No	Own	S 1/2	H	5.1	33.4	6x2 3/4 x 1/4	C
44	.....UG-30	1–2	525	131	157	8200	2490	B6.00/20	P32x6	Own	4–3 5/8 x 4 3/4	Own	U 4	No	Own	SF	H	5.85	36.1	7x2 1/4 x 1/4	C
45	.....G30	1–2	585	131	157	8275	2560	B6.00/20	P32x6	Own	6–3 1/4 x 4 1/4	Own	U 4	No	Own	SF	H	5.85	36.1	7x2 1/4 x 1/4	C
46	.....UF-30	1 1/4–2	595	136	165	8225	2581	B6.00/20	P32x6	Own	4–3 5/8 x 4 3/4	Own	U 4	No	Own	SF	H	5.67	37.1	7x2 5/8 x 1/4	C
47	.....F-30	1 1/4–2	695	136	165	8275	2631	B6.00/20	P32x6	Own	6–3 1/4 x 4 1/4	Own	U 4	No	Own	SF	H	5.67	37.1	7x2 5/8 x 1/4	C
48	.....F-35	1 1/2–2 1/2	1425	140	165	10175	3780	B6.00/20	DB6.00/20	Own	6–3 5/8 x 3 1/2	Own	U 4	No	Own	SF	H	6.38	41.4	7 1/4 x 2 1/2 x 1/4	C
49	.....G43	2–3	795	136	165	10500	3345	B7.00/20	DB7.00/20	Own	6–3 1/4 x 4 5/8	Own	U 4	No	Own	SF	H	6.37	50.9	8 1/4 x 2 1/4 x 1/4	C
50	.....F-40	2–3 1/2	1995	150	190	14590	5173	B6.50/20	DB6.50/20	Own	6–3 3/4 x 5	Own	U 4	No	Own	SF	H	6.38	43.7	9 1/4 x 3 1/2 x 1/4	C
51	.....	3–4	1515	135	185	12250	4235	P32x6	DP32x6	Own	6–3 3/4 x 4 1/2	Own	U 4	No	Own	S 1/2	H	7.13	46.3	7x2 1/2 x 1/4	C
52	.....(5) F-61	3–5 1/2	2575	170	195	19429	5789	P32x6	DP32x6	Own	6–3 3/4 x 5	Own	U 4	No	Own	SF	H	7.12	48.8	10x3 1/4 x 1/2	C
53	.....(5) G-82	4–7 1/2	5350	190	220	25000	8040	B9.75/20	DB9.75/20	Own	8–3 1/2 x 5	Own	U 5	No	Own	SF	H	7.71	69.6	10 x 3 1/2 x 1	C
54	Douglas.....A6	1	1095	135	145	7500	3075	P30x5	P30x5	Bud J214	6–3 3/4	WG T9	U 4	No	Cla B370	SF	H	5.6	36	5 3/4 x 3 3/4 x 1/4	T
55	.....B4	1 1/2	2050	150	Op	9000	3950	P30x5	P32x6	Bud WTU	4–3 3/4 x 5 1/2	Fu MKU12	U 4	No	Wis 4627	2F	R	6.57	26.3	5x1 3/4 x 1/4	T
56	.....B6	1 1/2	2150	150	Op	10500	4100	P30x5	P32x6	Bud HS6	6–3 3/4 x 4 1/2	Fu MKU12	U 4	No	Wis 4627	2F	R	6.57	26.3	6x2x 1/4	T
57	.....C4	2	3275	156	Op	12500	5100	P32x6	P34x7	Bud KBU-I	4–4x5 1/4	Fu MGU14	U 4	Op	Wis 6617	2F	R	6.9	44.8	6x2x 1/4	T
58	.....C6	2	3425	168	Op	15500	5850	P32x6	P34x7	Bud DW6	6–3 3/4 x 5	Fu MGU14	U 4	Op	Wis 6617	2F	R	6.33	41.1	6x2x 1/4	T
59	.....CD4	2 1/2	3855	190	Op	17500	5860	P34x7	P36x8	Bud EBU-I	4–4 1/4 x 5 1/2	Fu MGU14	U 4	Op	Wis 8817	2F	R	7.85	51.0	7x2 1/2 x 1/4	T
60	.....CD6	2 1/2	3955	190	Op	17500	5800	P34x7	P36x8	Bud DW6	6–3 3/4 x 5	Fu MGU14	U 4	Op	Wis 8817	2F	R	7.85	51.0	7x2 1/2 x 1/4	T
61	.....D4	3	4010	186	Op	20000	6500	S36x5*	S36x10*	Bud YBU-I	4–4 1/2 x 6	Fu RU16	U 4	Op	Wis 892A	2F	R	7.25	34.8	8x2 1/4 x 1/4	T
62	.....D6	3	4430	186	Op	20000	6800	P36x6	DP38x7	Bud BUS	6–4x5 1/2	Fu RU16	U 4	Op	Wis 892A	2F	R	7.25	34.8	8x2 1/4 x 1/4	T
63	.....D6 5p.	3	5500	216	Op	22000	7560	P38x7	DP40x8	Bud K428	6–4 1/2 x 5 1/2	Fu HOG	U 4	Op	Wis 1418	2F	R	8.18	76.7	10x2 3/4 x 1/4	T
64	.....F4	5	5500	185	Op	26000	9200	S36x6	S40x12	Bud BBU	4–5x6 1/2	Fu HU18	U 4	Op	Wis 1458	2F	R	9.12	57	10x2 5/8 x 1/4	T
65	.....F6	5	6300	196	Op	26000	9200	B9.75/20	DB9.75/20	Bud GL6	6–4 1/4 x 6	Fu HU18	U 4	Op	Wis 1567	2F	R	10.3	64.4	10x2 5/8 x 1/4	T
66	Duplex.....GF	2	2800	143	Op	10500	4700	P32x6	P34x7	Bud WTU	4–3 3/4 x 5 1/2	BL 31	U 3	No	Tim 64600	W 1/2	H	6.50	34.8	5x3x 1/4	C
67	.....GS	2	2950	143	Op	10500	4800	P32x6	P34x7	Bud HS6	6–3 3/4 x 4 1/2	BL 31	U 3	No	Tim 64600	W 1/2	H	6.50	34.8	5x3x 1/4	C
68	.....S3		3600	160	Op	15000	5600	P32x6	P36x8	Bud DW6	6–3 3/4 x 5	BL 324	U 4	No	Tim 65001	WF	H	6.75	36.2	6x3 1/2 x 1/4	C
69	.....FAC	3 1/2	4250	166	Op	16500	7200	S34x5	S36x8	Bud EBU-I	4–4 1/4 x 5 1/2	BL 51	U 5	No	Tim 65706	WF	R	8.5	45.5	7x3 1/2 x 1/4	C
70	(4 Whl. Dr.) . EF	3 1/2	4250	130	Op	17000	6500	S36x8	S36x8	Bud EBU-I	4–4 1/4 x 5 1/2	BL 51	U 4	A 2	Own EF1	I	R	8.00	86.0	6x3 1/8 x 1/4	C
71	.....SAC	4	4750	172	Op	18000	7400	S34x5	S36x8	Bud K428	6–4 3/4 x 4 3/4	BL 55	A 7	No	Tim 65706	WF	R	8.5	81.0	7x3 1/2 x 1/4	C
72	.....K	5	5200	172	Op	21000	8000	B10.50/20	DB10.50/20	Bud L525	6–4 1/2 x 5 1/2	BL 60	A 7	No	Tim 76725	w/2F	R	Opt	Opt	8x3 1/2 x 1/4	C
73	.....M	5–7	7600	168	Op	28000	10000	P34x7	DS36x7	Bud GL6	6–4 1/2 x 6	BL 70	A 7	No	Tim 68700	WF	R	Opt	Opt	9 1/2 x 3 1/2 x 11/16	C
74	Federal.....DM		900	120	120	8000	3050	B6.00/20	P32x6	Con W10	4–3 3/4 x 4 1/4	WG T9	U 4	No	Cla B374	SF	H	5.67	38.2	6x2 3/4 x 1/4	C
75	.....D3	1 1/2	670	130	190	10000	3225	B6.00/20	P32x6	Con W10	4–3 1/2 x 4 1/4	WG T9	U 4	No	Cla B374	SF	H	6.38	40.8	6x2 3/4 x 1/4	C
76	.....E3	1 1/2	695	130	190	10000	3225	B6.00/20	P32x6	Con 25A	6–3 3/4 x 4	WG T9	U 4	No	Cla B374	SF	H	6.38	40.8	6x2 3/4 x 1/4	C
77	.....F7	1 3/4	1145	132	184	10000	3765	P30x5	DP30x5	Con 16C	6–3 1/2 x 4 5/8	Own 7774	U 4	No	Tim 52005H	SF	H	5.83	29.2	6x2 3/4 x 1/4	C
78	.....F8	2	1245	132	188	12000	3865	P30x5	DP30x5	Con 16C	6–3 3/4 x 4 5/8	Own 7774	U 4	No	Tim 54200H	SF	H	6.8	34.0	6x2 3/4 x 1/4	C
79	.....G5	2	995	132	188	11500	3750	B6.50/20	DB6.50/20	Con 25A	6–3 3/4 x 4	Own 7774	U 4	No	Tim 54200H	SF	H	6.13	34.0	6x2 3/4 x 1/4	C
80	.....A6	2 1/2	1445	151	200	13500	4580	P32x6	DP32x6	Con 16C	6–3 3/4 x 4 5/8	Own 7776	A 4	No	Cla B610	SF	H	6.38	38.5	6x3 1/2 x 1/4	C
81	.....A6T	2 1/2–3	1745	151	200	15000	5110	P32x6	DP32x6	Con 16C	6–3 3/4 x 4 5/8	Own 7776	A 4	No	Tim 58000H	SF	H	7 80	47.1	6x3 1/2 x 1/4	C
82	.....A6TW	2 1/2–3	1880	151	200	15000	5110	P32x6	DP32x6	Con 16C	6–3 3/4 x 4 3/4	Own 7776	A 4	No	Tim 65001H	WF	H	8.75	52.9	6x3 1/2 x 1/4	C
83	.....T3W	2 1/2	1595	148	185	14000	5110	P32x6	P36x8	Wau V	4–4x5	Own 7754	A 4	No	Tim 64603H	W 1/2	R	7.25	36.3	6x3 1/2 x 1/4	C
84	.....T3WFA	2 1/2–3	1795	148	185	16000	5400	P32x6	DP32x6	Wau V	4–4x5	Own 7754	A 4	No	Tim 65001H	WF	R	8.75	43.8	6x3 1/2 x 1/4	C
85	.....T10B	3 1/2–4	2550	165	230	19000	6645	P34x7	DP34x7	Con 16R	6–4x4 1/2	Own 7784	A 4	No	Tim 58200H	BF	R	6.83	44.5	7 1/2 x 3 1/2 x 1/2	C
86	...T10DR-T10W	3 1/2–4	2685	165	230	19000	6645	P34x7	DP34x7	Con 16R	6–4x4 1/2	Own 7784	A 4	No	Tim 65200H	w/2F	R	6.75	44.0	7 1/2 x 3 1/2 x 1/2	C
87	.....A600	2 1/2–3	1745	157	206	15000	5050	B7.50/20	DB7.50/20	Con E600	6–3 11/16 x 4 3/4	Own 7784	A 4	No	Cla B610	SF	H	6.38	38.5	6x3 1/2 x 1/4	P
88	.....A600T	3–3 1/2	2045	157	206	17000	6100	B8.25/20	DB8.25/20	Con E600	6–3 11/16 x 4 1/2	Own 7784	A 4	No	Tim 58000H	SF	H	7.8	50	8 6x3 1/2 x 1/4	P
89	...A600TDR-A600TW	3–3 1/2	2180	157	206	17000	6100	B8.25/20	DB8.25/20	Con E600	6–3 11/16 x 4 3/4	Own 7784	A 4	No	Tim 65001H	w/2F	H	7.5	48.9	6x3 1/2 x 1/4	P
90	.....U6-U6DR	4 1/2–5	3860	165	230	22000	7420	P36x8	DP36x8	Con 20R	6–4 1/2 x 4 3/4	BL 607	A 7	No	Tim 65706H	w/2F	R	6.8	64.6	7 1/2 x 3 1/2 x 1/4	C
91	.....C7-C7W	6	4485	195	249	26000	9550	B9.75/20	DB9.75/20	Con 21R	6–4 3/4 x 4 3/4	BL 607	A 7	No	Tim 76725H	w/2F	R	7.92	75.2	7 5/8 x 3 1/2 x 1/4	P
92	.....C8-C8W	6	4895	195	249	26000	9650	B9.75/20	DB9.75/20	Con 21R	6–4 3/4 x 4 3/4	BL 607	A 7	No	Tim 76725W	w/2F	R	7.92	75.2	7 5/8 x 3 1/2 x 1/4	P
93	.....X8DR-X8	7 1/2	4335	162	186	30000	9750	S36x6	S40x14	Con B7	4–5x6	BL 60	A 7	No	Tim 68700DP	w/2F	R	11 7	111	9 1/2 x 3 1/2 x 1/4	C
94	.....X8RDR-X8R	7 1/2	4735	162	186	30000	10475	P40x8	DP40x8	Con 21R	6–4 3/4 x 4 3/4	BL 60	A 7	No	Tim 68702DP	w/2F	R	11.7	111	9 1/2 x 3 1/2 x 1/4	C
95	Fisher-Std. . JR-BX	3/4–1	875	120	128	6800	2800	P30x5	P30x5	Con W10	4–3 7/8 x 4 1/4	WG T9	U 4	No	Sal F	S 1/2	H	5.37	34.4	6 x 2 1/4 x 1/4	C
96	.....Sp.X	1 1/2	950	128	136	7800	3150	P30x5	DP30x5	Con W20	4–4 1/2 x 4 1/4	Co F4B	U 4	No	Tim 52200H	SF	H	5.83	37.3	6x2 3/4 x 1/4	C
97	.....10-AX	1 1/2–2	1090	136	165	8800	3220	P30x5	DP30x5	Con 17E	6–3 3/4 x 4	BL 214	U 4	No	Tim 53200H	SF	H	5.14	32.9	6x2 3/4 x 1/4	C
98	.....15A	1 1/2–2	1390	144	165	8000	3250	P30x5	P32x6	Con 17E	6–3 3/4 x 4	BL 214	U 4	No	Tim 52200H	SF	H	5.83	37.4	6x2 3/4 x 1/4	C
99	.....22A	2	1945	156	162	13200	4000	P32x6	DP32x6	Con 16C	6–4x4 1/2	BL 314	U 4	No	Tim 54200H	SF	R	5.83	38.5	6x2 3/4 x 1/4	C
100	.....30A	3	2495	160	190	16800	5800	P34x7	DP34x7	Con 16R	6–4x4 1/2	BL 314	U 4	No	Tim 56200H	SF	R	6.16	40.6	7 1/4 x 2 1/2 x 1/4	C
101	.....31A	3	2975	160	190	16800	5800	P34x7	DP34x7	Con E600	6–3 11/16 x 4 1/2	BL 334	U 4	No	Tim 56200H	SF	R	6.16	40.6	7 1/4 x 2 1/2 x 1/4	C
102	.....61A	3 1/2	3750	155	190	16800	5600	P34x7	DP34x7	Con 16R	6–4x4 1/2	BL 334	U 4	No	Tim 58200H	SF	R	6.16	32.9	6 1/4 x 2 1/2 x 1/4	C
103	.....80A	4	4500	146	200	21600	6900	P36x8	DP36x8	Con 18R	6–4x4 1/2	BL 55	U 7	No	Tim65720TW	SF	R	7.75	73.6	7 1/2 x 2 1/2 x 1/4	C
104	.....100A	5	4660	160	200	21500	8300	P36x8	DP36x8	Con 21R	6–4 3/4 x 4 3/4	BL 60	U 7	No	Tim 66720W	SF	R	8.2	77.9	8x2 1/2 x 1/4	C
105	.....105A	5	5300	168	200	25000	8400	P36x8	DP38x9	Con 21R	6–4 3/4 x 4 3/4	BL 60	U 7	No	Tim68720TW	SF	R	8.75	83.1	8x2 1/2 x 1/4	C
106	Ford Comm.		320	106	106		1688	B5.25/18	B5.25/18	Own	4–3 1/2 x 4 1/4	Own	U 3	No	Own	S 3/4	U	4.1	13.9	6x2x 1/4	C
107	Truck	1 1/2	470	131	131		2864	B6.00/20	P32x6	Own	4–3 1/2 x 4 1/4	Own	U 4	No	Own	S 3/4	U	6.6	42.2	7x2 3/4 x 1/4	C
108	Truck	1 1/2	500	157	157		3140	B6.00/20	P32x6	Own	4–3 7/8 x 4 3/4	Own	U 4	No	Own	S 3/4	U	6.6	42.2	7x2 3/4 x 1/4	C
109	FWD.....H4	1 1/2–2	3325	120	160	11000	5300	P34x7	P34x7	Wis SU	4–4x5	Cot A	A 4	Op	Own H	BF	H	7.86	38.0	5 1/4 x 2 1/4 x 1/4	C
110	(All 4Wh.Dr.) . H6	2–2 1/2	3385	133	180	13000	5900	P9.00/20	P9.00/20	Wau MS	6–3 3/4 x 4 3/4	BL 51	U 4	No	Own H	BF	H	8.92	47.7	5 1/4 x 2 1/4 x 1/4	C
111	.....HH-6	2 1/2–3	4135	138	170	15000	6400	P9.75/20	P9.75/20	Wau MK	6–4 1/8 x 4 3/4	BL 55	A 7	R 2	Own U	BF	H	6.95	84.7	5 1/4 x 2 1/4 x 1/4	C
112	.....B	3	4200	124	156	15500	6460	S36x6	S36x6	Own A	4–4 3/4 x 5 1/2	Cot DAF	A 3	Op	Own B	BF	H	8.9	35.6	5 1/4 x 2 1/4 x 1/4	C
113	.....CU-6	3 1/2–4	4985	147	179	19500	8600	B10.50/20	B10.50/20	Wau SRS	6–4 1/2 x 5 1/2	Own U	A 5	Op	Own U	BF	H	8.9	88.6	7x3x 1/2	C
114	.....CU6A	3 1/2–4	4685	147	179	18500	7500	B10.50/20	DB10.50/20	Wau SRS	6–4 3/4 x 5 1/2	BL 615	U 5	Op	Own U	BF	H	6.72	55.2	6x2 3/4 x 1/4	C
115	.....SSU	4–5	5135	147	179	22000	8900	B11.25/20	B11.25/20	Wau SRL	6–4 1/2 x 5 1/2	Own U	A 5	Op	Own M	BF	H	8.9	88.6	7x3x 1/2	C
116	.....SSUA	4–5	4835	147	179	21000	8100	B11.25/20	B11.25/20	Wau SRL	6–4 3/4 x 5 1/2	BL 706	U 5	Op	Own M	BF	H	7.35	73	7x3x 1/2	C
117	.....M5	5–7 1/2	7400	165	195	29500	11580	B12.75/20	DB12.75/20	Wau S

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELEC-TRICAL: Ignition System Make	ELEC-TRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	360	4.4	240	40.8	90–2500	L	C	C	7-2¾	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	578a		TD	(3)	(3)	34	40x2½	54x3	½
2	383	4.5	236	43.3	95–2500	H	C	A	7-2¾	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	660a		TD	(3)	(3)	34	40x2½	54x3	½
3	500	4.2	340	48.6	121–2400	H	C	A	7-2¾	13⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000A	Ros	L4IHV	768a		TD	(3)	(3)	34	40x2½	54x3	½
4	611	4.5	384	54.1	127–2300	H	L	G	A	7-3	13⅛	FP	No	Zen	M	DR	DR	dpBL	Pe	Spi	Tim 26450W	Ros	Ws41A	921a		TD	(3)	(3)	34	46x3	60x3½	½
5	260	4.4	152	29.4	65–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Spi	Tim 30000	Ros	L4IH	380a		TX	144	60	34	38x2½	52x2½	½
6	298	4.4	190	33.7	69–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Spi	Tim 31000	Ros	L4IH	452a		TX	156	66	34	38x2½	54½x3	½
7	360	4.5	212	40.3	82–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Spi	Tim 31000	Ros	L4IH	260a		TX	156	66	34	38x2½	54½x3	½
8	383	4.5	264	43.3	92–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Spi	Tim 33000	Ros	L4IH	394a		CD	168	72	34	38x2½	54½x3	½
9	453	4.5	300	48.6	98–2200	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Sol	Tim 27450	Ros	L4IH	768a		CD	192	84	34	38x2½	54½x3	½
10	529	4.7	350	51.3	114–2200	L	G	A	7-3	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Sol	Tim 27450	Ros	L4IH	921a		CD	216	72	34	38x2½	54½x3	½
11	707	4.5	450	60.	150–2000	L	G	A	7-3	14	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Sol	Tim 27450	Ros	W4A	921a		CD	108	33	34	46x3	52x4	½
12	707	4.5	450	60.	150–2000	L	G	A	7-3½	12½	PC	Ha	Zen	M	DR	DR	P.BL	Ch	Sol	Wis F211	Ros	L2IH	433a		CD	108	33	34	46x3	52x4	½
13	384	4.5	262	43.3	99–2200	L	G	A	7-3½	15¼	PC	Ha	Zen	M	DR	DR	P.BL	Ch	Sol	Tim 30000H	Ros	L2IH	542a		CD	168	72	34	46x3	None	½
14	529	4.5	350	51.3	114–2000	L	G	A	7-3½	15¼	PC	Ha	Zen	M	DR	DR	P.BL	Ch	Sol	Tim 30000H	Ros	L4IH	269a		CD	192	84	34	45x3	54½x3	½
15	214	4.9	142	27.3	71–3200	L	C	A	7-3	14	PC	Ha	Zen	M	DR	DR	D.Fu	Ch	Sol	Tim 31000H	Ros	L4IH	269a		TX	106½	58½	34	40x2¼	54x2½	½
16	248	5.0	160	27.3	70–4200	L	C	A	4-2⅝	6⅜	FP	No	Zen	M	DR	DR	P.Fu	Ch	Sol	Tim 33000H	Ros	L4IH	281a		TX	105	57	34	40x2¼	54x2½	½
17	248	5.0	160	27.3	70–3200	L	C	C	7-2⅝	10⅜	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Tim 33000H	Ros	L4IH	353a		TX	135	78½	33½	40x2¼	54x2½	½
18	311	4.2	196	38.4	73–2400	H	C	N	7-2¾	13⅜	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Tim 33000H	Ros	L4IH	394a		TX	124½	69	33½	40x2¼	54x2½	½
19	339	4.2	212	38.4	82–2400	H	C	N	7-2¾	13⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	483a		DX	132	80½	34	40x2¼	54x2½	½
20	339	4.2	212	38.4	81–2400	H	C	N	7-2¾	13⅜	FP	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	186a		DX	132	80½	34	42x2½	56x3	½
21	427	4.2	267	45.9	100–2600	H	C	N	7-2¾	13⅜	FP	Ha	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 33000H	Ros	L4IH	219a		TX	93	51½	34	42x2	60x3½	½
22	228	4.4	143	27.3	60–2800	L	G	C	7-2½	13⅜	FP	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	350a		TX	93	51½	34	42x2	50x2½	½
23	228	4.4	143	27.3	60–2800	L	G	C	7-2½	10⅜	PC	No	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 35000H	Ros	L4IH	350a		TX	96	54	34	42x2½	53x2½	½
24	228	4.4	143	27.3	60–2800	L	G	C	7-2½	10⅜	PC	No	Zen	M	AL	AL	P.BB	Pe	Blo	Tim 26450	Ros	L4IHV	483a		DX	132	80½	34	42x2½	56x3	½
25	263	4.4	164	31.5	68–2800	L	G	A	7-2½	10⅜	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F212A	Ros	L4IH	186a		TX	93	51½	34	42x2½	56x3	½
26	283	4.4	176	33.7	76–2800	L	G	A	7-2½	10⅜	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F212A	Ros	L4IH	186a		TX	93	51½	34	48x3	60x3½	½
27	339	4.7	225	38.4	100–2800	L	G	C	7-2⅝	13¼	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F212A	Ros	L4IH	219a		TX	93	51½	34	42x2	50x2½	½
28	339	4.7	225	38.4	100–2800	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Cla F308	Ros	L4IH	350a		TX	96	54	34	42x2½	53x2½	½
29	339	4.7	225	38.4	100–2800	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Cla F308	Ros	L4IH	350a		TX	126	72	34	42x2½	53x2½	½
30	384	4.4	262	41.3	90–2200	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	LN	P.BB	GO	Spi	Cla F308	Ros	L4IH	350a		TD	126	72	34	42x2½	53x2½	½
31	428	4.4	280	45.9	93–2200	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Cla F308	Ros	L4IHV	350a		TD	117	74⅝	34	42x2½	53x2½	½
32	501	4.4	330	48.6	111–2200	L	G	C	7-3	14	PC	Ha	Zen	M	LN	LN	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	350a		TD	Opt	113⅝	34	45¼x2½	56x3	½
33	339	4.7	225	38.4	100–2800	L	G	C	7-3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	408	pa	TD	126	80⅛	34	45¼x2½	56x3	½
34	529	4.4	350	51.3	114–2200	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	LN	LN	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	408	pa	TD	138	87⅜	34	45¼x2½	56x3	½
35	299	4.9	198	33.7	85–2800	L	G	C	7-3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	499	a	TD	120	79½	34	45¼x2½	56x3	½
36	196	4.6	124	21.0	48–2800	L	C	S	4-2¼	9⅛	PC	Mo	Til	M	AL	AL	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	499	a	TD	138	88	34	45¼x2½	56x3	½
37	211	5.3	134	25.3	60–3100	L	C	S	A3-2¼	6¼	CC	No	Car	M	DR	DR	D.BL	Pe	Blo	Tim 33000H	Ros	Ws 41A	552	pa	TD	114	71⅝	34	45¼x2½	56x3	½
38	196	4.6	124	21.0	48–2800	L	G	S	4-2¼	6¼	CC	No	Car	M	DR	DR	P.BB	Fe	Own		Ros	L4IHV	375	a	TD	138	89¼	34	46x3	56x3½	½
39	208	5.1	132	27.3	63–3200	L	G	S	7-2⅝	6⅛	CC	No	Car	V	DR	DR	P.BB	Fe	Own		Own	O4IH	121	p	FD	120	77¼	34	42x2¼	50x3	½
40	196	4.6	124	21.0	48–2800	L	G	S	4-2¼	6¼	CC	No	Zen	V	NE	NE	P.BB	Fe	Own		Own	O4IH	121	p	TX	53⅞	26⅝	42⅛	35½x1¾	53½x1¼	N
41	211	5.3	134	25.3	60–3100	L	C	S	A3-2¼	6¼	CC	No	Car	M	DR	DR	P.BB	Fe	Own		Ha	O4IH	189	p	TX	53⅞	26⅝	42⅛	35½x1¾	53½x1¼	N
42	196	4.6	124	21.0	48–2800	L	G	S	4-2¼	6¼	CC	No	Car	M	DR	DR	P.BB	Fe	Own		Ha	O4IH	189	p	TX	66⅞	31	37⅞	39x2	48x2½	½
43	208	5.1	132	27.3	63–3200	L	G	S	7-2⅝	6⅛	CC	Ha	Car	V	DR	DR	P.BB	Fe	Own		Own	O4IH	175	a	TX	66⅞	31	37⅞	39x2	48x2½	½
44	196	4.6	124	25.3	48–2800	L	G	S	A3-2¼	6¼	CC	Ha	Zen	V	NE	NE	P.BB	Fe	Own		Own	O4IH	175	a	TX	91½	50½	34	36x1¾	48x2¼	½
45	211	5.3	134	21.0	60–3100	L	C	S	4-2¼	6⅛	CC	No	Car	M	DR	DR	P.BB	Fe	Own		Ha	O4IH	206	p	TX	91½	50½	34	36x1¾	48x2¼	½
46	196	4.6	124	27.3	48–2800	L	G	S	4-2¼	6¼	CC	No	Car	M	DR	DR	P.BB	Fe	Own		Own	O4IH	206	p	TX	85⅝	50	37⅞	39x2	48x2½	½
47	211	5.2	134	31.5	60–3100	L	C	S	4-2¼	6⅛	CC	No	Car	M	DR	DR	P.BB	Fe	Own		Own	O4IH	175	a	TX	85⅝	50	37⅞	39x2	48x2½	½
48	208	5.1	132	27.3	63–3200	L	C	S	4-2¼	6⅛	CC	No	Car	M	DR	DR	P.BB	Lo	Own		Own	O4IH	175	a	TX	91½	50½	34	36x1¾	48x2¼	½
49	217	5.8	144	25.3	75–3200	L	C	S	7-2¾	6⅛	CC	Ha	Zen	M	DR	DR	P.BB	Lo	Own		Own	O4IH	187	a	TX	91½	50½	34	36x1¾	48x2¼	½
50	309	4.7	200	31.5	96–3000	L	C	S	7-2¾	6¼	CC	Ha	Car	M	DR	DR	P.BB	Fe	Own		Own	O4IH	187	a	TX	88⅜	52⅝	37⅞	39x2	48x2½	½
51	241	5.3	167	39.2	78–3000	L	C	S	7-2¾	11¾	CC	Ha	Det	M	DR	DR	P.BB	Fe	Own		Ha	O4IH	187	a	TX	88⅜	52⅝	37⅞	39x2	48x2½	½
52	309	4.7	200	21.0	96–3000	L	C	S	7-2¾	11¾	CC	KP	Zen	V	NE	DR	P.BB	Lo	Own		Own	O4IH	305	a	TX	119½	62¾	34	40x2⅛	56x3	½
53	384	5.0	262	25.3	115–3000	L	G	S	7-2¾	9	FP	Ha	Det	M	DR	DR	P.BB	Lo	Own		Own	O4IH	229	a	TX	145	84⅛	38⅛	39x2	48x2½	½
54	214	5.0	135	27.3	61–3000	L	G	C	8-2¾	13	PC	Ha	Str	M	DR	DR	P.BB	Fe	Own		Own	O4IH	350	a	CD	124⅛	69¾	33⅛	42x3	56½x3½	½
55	226	4.0	136	22.3	36–1800	L	G	C	7-2½	10½	FP	No	Zen	M	AL	AL	P.BB	Fe	Own		Ha	O4IH	382	p	TX	82¼	54⅞	34	39x2½	45x3	½
56	241	4.5	143	27.3	57–2500	L	G	C	3-2⅜	8	PC	Bu	Zen	E	LN	LN	D.Fu	Mo	MM	Cla F208	Jac	O4IHV	416	a	CD	149⅛	89¾	34	42x3	56x3½	½
57	263	4.2	156	25.6	43–2000	L	G	C	4-2⅜	8	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Jac	BWs41A	650	a	CD	149⅛	89¾	34	42x3	56x3½	½
58	331	4.5	200	33.7	73–2400	L	G	C	3-2⅜	9⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	L4IH	377	p	FX	96	58¾	34	39½x2	49x2½	½
59	312	4.0	174	28.9	49–1900	L	G	C	4-2½	9	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	a	2I	110	72	31	46x2½	52x2½	½
60	331	4.5	200	33.7	73–2400	L	G	C	3-2⅜	9⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	a	2I	110	72	31	46x2½	52x2½	½
61	381	4.1	222	32.4	50–1400	L	G	C	4-2½	9	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	a	CX	144	88	31	46x2½	52x2½	½
62	386	4.3	230	38.4	48–2800	L	G	C	3-2⅜	9⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IM	538	a	CX	144	88	31	46x2½	52x2½	½
63	411	4.7	280	40.8	83–2100	L	G	C	4-2½	9⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IMV	538	a	CX	192	104	31	46x2½	52x2½	½
64	510	3.9	302	40.0	61–1400	L	G	C	3-2⅜	9⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IMV	503	a	CX	192	104	31	46x2½	54x3	½
65	572	4.3	358	48.6	114–1900	L	G	C	3-2⅜	12⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 615	Ros	W2IMV	503	a	CX	168	98	31	45x3	54x3	½
66	226	4.5	136	22.5	37–1800	L	G	C	4-3	10⅛	PC	No	Zen	V	AL	AL	D.Fu	Ow	Blo	Shu 615	Ros	W2IMV	503	a	CX	223	121	31	45x3	54x3	½
67	241	4.5	150	27.3	57–2500	L	G	C	3-3	8	FP	No	Zen	V	AL	AL	D.BL	Mo	Cle	Shu 5410	Ros	W2IMV	503	a	CX	216	130	36	45x3	54x4	½
68	330	4.5	213	37.7	61–2100	L	G	C	4-2⅜	8⅛	FP	No	Zen	V	AL	AL	D.BL	Mo	Cle	Shu 5410	Ros	W2IM	538	a	CX	156	108	36	48x3	54x4	½
69	312	4.5	174	28.9	57–2100	L	G	C	3-3⅛	10⅛	PS	No	Str	V	AL	AL	D.BL	Mo	Cle	Shu 5410	Ros	T2IM	326		2I	Opt	69	34	39x2½	50x2½	½
70	312	4.5	174	28.9	57–2100	L	G	C	3-3⅛	10⅛	PS	No	Zen	V	El	AL	D.BL	Mo	Cle	Shu 5510	Ros	T2IM	326		2I	Opt	63	34	39x2½	50x2½	½
71	428	4.5	280	45.9	102–2400	L	G	C	3-2⅜	10⅛	PS	No	Zen	V	El	AL	D.BL	Mo	Cle	Shu 5550	Ros	T2IM	665	a	TD	Opt	80	34	39x2½	50x2½	½
72	525	4.5	348	48.6	111–2200	L	G	C	7-3f	9½	FP	No	Zen	M	AL	AL	D.BL	Lo	Pet	Own ECZ	Wo	OP4M	100	a	2	Opt	80	34	39x2½	50x2½	½
73	572	4.5	358	48.6	105–2200	L	G	C	7-3	11½	PS	No	Str	P	AL	AL	D.BL	Mo	Cle	Shu 5550	Ros	L4IHV	775	a	TD	Opt	86	34	39x2½	50x2½	½
74	200	4.7	126	24.0	50–2700	L	C	A	4-3	10⅛	FP	Mo	Str	V	AL	AL	D.BL	Yo	Pet	Shu 5550	Ros	L4IHV	855	a	TD	Opt	81	39⅛	44x3	52x3	½
75	200	4.7	126	24.0	50–2700	L	C	A	3-2⅛	5⅞	CC	KP	Car	M	DR	DR	P.BB	Mo	Cle	Shu 637	Ros	T21A	495	a	TD	Opt	80	34	39x2½	44x3	½
76	215	4.9	142	27.3	72–3400	L	C	A	3-2⅛	5⅞	CC	No	Zen	M	DR	DR	P.BB	Lo	Spi	Shu 655	Ge	L4IH	200	a	TX			34	39x2½	56x4	½
77	248	5.0	150	27.3	64–2600	L	C	A	4-2⅜	6⅝	CC	No	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L4IH	191	P	TX	103	51⅛	34	39½x3	52x3½	½
78	248	5.0	150	27.3	64–2600	L	C	A	7-2⅜	10⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L4IH	191	P	TX	103	51⅛	34	42x3	56x4	½
79	215	4.9	142	27.3	72–3400	L	C	A	7-2⅜	10⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L4IH	191	P	TX	103	51⅛	34	38½x2¼	50x2½	½
80	248	5.0	150	27.3	72–3400	L	C	A	4-2⅜	6⅝	CC	KP	Zen	M	DR	DR	P.BB	Lo	Cle	Tim 11704H	Ge	L4IH	191	P	TX	103	51⅛	34	38½x2¼	50x2½	½
81	248	5.0	150	27.3	64–2600	L	C	A	7-2⅜	10⅛	CC	No	Zen	M	DR	DR	P.BB	Lo	Cle	Tim 31020H	Ge	L4IH	247	P	TI	95	51	34	38x2¼	50x2½	½
82	248	5.0	150	27.3	64–2600	L	C	A	7-2⅜	10⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	Cle	Tim 31020H	Ge	L4IH	269	P	TI	95	51	34	38x2¼	50x2½	½
83	251	4.1	162	25.6	64–2600	L	C	A	7-2⅜	10⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IH	269	P	TI	95	51	34	38x2¼	50x2½	½
84	251	4.1	162	25.6	50–2000	L	G	C	3-2⅜	7½	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IH	270	a	TI	95	15	34	38x2¼	50x2½	½
85	311	4.2	196	38.4	50–2000	L	G	C	3-2⅜	7½	CC	Wa	Zen	V	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IHV	379	a	TI	119	71	34	40x2¼	52x3	½
86	311	4.2	196	38.4	75–2200	H	C	C	7-2⅜	13⅛	CC	Wa	Zen	M	DR	DR	P.BB	Lo	PS	Own 7720	Ros	L4IH	379	a	TI	119	71	34	40x2¼	51¾x3	½
87	288	4.6	181	32.6	75–2200	H	C	C	7-2⅜	13⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 7720	Ros	L4IHV	337	a	TI	119	71	34	40x2¼	51¾x3	½
88	288	4.6	181	32.6	73–2600	L	G	C	7-2⅜	12⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 7738	Ros	L4IHV	379	a	TI	119	71	34	38x2¼	52x3	½
89	288	4.6	181	32.6	73–2600	L	G	C	7-2⅜	12⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 7738	Ros	L4IHV	379	a	TI	117	79	34	38x2¼	51¾x3	½
90	381	4.2	237	40.8	85–2200	H	C	C	7-2⅜	12⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IH	270	a	TI	117	79	34	42x2½	54x3	½
91	428	4.2	268	45.9	100–2200	H	C	C	7-2⅜	13⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F318	Ros	L4IH	270	a	TI	113	71	34	42x2½	54x3	½
92	428	4.2	268	45.9	100–2200	H	C	C	7-2⅜	13⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F318	Ros	L4IHV	379	a	TI	113	71	34	40x2¼	52x3	½
93	471	3.7	288	40.0	61–1350	L	G	C	7-2⅜	13⅛	CC	KP	Zen	M	DR	DR	P.BL	Lo	Spi	Own 7720	Ros	L4IHV	379	a	TI	113	71	34	40x2¼	52x3	½
94	428	4.2	268	45.9	100–2200	H	C	C	7-2⅜	11⅛	FP	Pe	Zen	M	DR	DR	P.BB	Lo	Spi	Tim 36020H	Ros	L4IHV	465	a	TD	117	79	34	40x2¼	52x3	½
95	200	4.7	126	24.0	49–2800	L	C	A	3-2⅛	5⅞	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 5008	Ha	W41A	513	a	TD	162	102	34	42x2½	54x3	½
96	227	4.6	152	26.8	52–2400	L	C	A	3-2⅛	5⅞	FP	No	Zen	M	AL	AL	P.Lo	Lo	Spi	Own 5008	Ge	T21MV	623	a	TD	162	102	34	42x3	56x3½	½
97	214	5.0	138	27.3	61–3000	L	C	A	7-2⅛	9⅛	FP	No	Zen	M	AL	AL	P.Lo	Lo	Spi	Sal F	Ros	T21MV	568	a	RI	151	87	38	44x3	56x3½	½
98	214	5.0	138	27.3	61–3000	L	C	A	7-2⅛	9⅛	FP	No	Zen	M	AL	AL	P.Lo	Lo	Spi	Tim 11703H	Ros	L4IH	458	a	RI	151	87	38	44x3	56x3½	½
99	248	5.0	150	27.3	66–3200	L	C	A	7-2⅛	9⅛	FP	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 30000H	Ros	L4IH	257	a	TX	84	47½	32	40x2	54x2½	½
100	311	4.1	196	38.4	73–2400	H	C	C	7-2⅛	10⅛	FP	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 11703H	Ros	L4IH	225	a	TX	88	54½	32	40x2	54x2½	½
101	288	4.1	180	32.6	73–2700	L	C	C	7-2⅛	13⅛	FP	Ha	Zen	M	DR	DR	P.BL	Lo	Spi	Tim 11703H	Ros	L4IH	259	a	TX	108	60½	32	40x2	54x2½	½
102	311	4.1	196	38.4	73–2400	H	C	C	7-2⅛	12⅛	FP	Ha	Zen	M	DR	DR	D.BL	Lo	Spi	Tim 33000H	Ros	L4IH	380	a	TX	106	68½	32	40x2	54x2½	½
103	339	4.1	212	38.4	80–2400	H	C	C	7-2¾	13⅛	FP	Ha	Zen	M	DR	DR	D.BL	Lo	Spi	Tim 33000H	Ros	L4IH	380	a	TX	130	80½	32	40x2	54x2½	½
104	428	4.1	268	45.9	100–2600	H	C	C	7-2¾	13⅛	FP	Ha	Zen	M	DR	DR	D.BL	Lo	Spi	Tim 33000H	Ros	L4IH	577	a	TX	120	74	34	43x2½	54x3	½
105	428	4.1	268	45.9	100–2600	H	C	C	7-2¾	13⅛	FP	Ha	Zen	M	DR	DR	D.BL	Lo	Spi	Tim 33000H	Ros	L4IH	660	a	CD	120	74	34	43x2½	54x3	½
106	200	4.6	128	24.0	50–2800	L	G	A	3-2	7	PS	No	Zen	P	Ow	Ow	D.BL	Lo	Spi	Tim 35100Tw	Ros	L4IH	660	a	CD	144	94	32	43x2½	54x3	½
107	200	4.6	128	24.0	50–2800	L	G	A	3-2	7	PS	No	Zen	P	Ow	Ow	P.Lo	Ow	Spi	Tim 35100Tw	Ros	W41A	768	a	CD	126	69	32	43x2½	54x3	½
108	200	4.6	128	24.0	50–2800	L	G	A	3-2	7	PS	No	Zen	P	Ow	Ow	P.Lo	Ow	Spi	Tim 27450Tw	Ros	W41A	768	a	CD	144	94	38	46x3	54x4	½
109	251	4.5	160	25.6	50–2800	H	G	A	3-2	7	PS	No	Zen	P	Ow	Ow	P.Lo	Ow	Spi	Own	Own	O4IM	820	a	CD	144	94	38	46x3	54x4	½
110	315	4.5	200	33.7	50–2000	H	G	C	7-2⅝	8	PC	No	Zen	V	AL	AL	P.Lo	Ow	Spi	Own	Own	O4IM	186	a	4I		25⅞		46x3	54x4	½
111	381	4.5	240	40.8	72–2500	L	G	C	7-2⅝	12⅜	PC	No	Zen	V	AL	AL	D.DG	Pe	Blo	Own	Own	O4IM	475	a

Line Number	MAKE AND MODEL	GENERAL (See Keynote)						TIRE SIZE		MAJOR UNITS								FRAME	
										ENGINE		TRANSMISSION		REAR AXLE					
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS In High	GEAR RATIOS In Low	Side Rail Dimensions	Type
1	Garford 80Z	4	5330	175	192	24000	8400	S36x6	S36x14	Bud BA6	6-4½x5½	BL 60-Max	A 7 No	Tim 66700	WF	R	10.3	98.2	8x3½x¼	C
2	(concluded) 100Z	5	5830	175	192	30000	9600	S36x6	S36x14	Bud BA6	6-4½x5½	BL 60-Max	A 7 No	Tim 68700	WF	R	10.1	95.0	8x3½x¼	P
3	General Mot. (6) T15	1½-1½	645	130	141	6500	2625	B5.50/20	B5.50/20	Own 200	6-3⅛x3⅞	Own	U 3 No	Own	S½	H	4.86	16.1	6x2¼x¼	TL
4	T18	1½-2	595	131	157	8200	2785	P30x5	P32x6	Own 200	6-3⅛x3¼	Own	U 4 No	Own	S½	U	5.43	35.7	6x2¼x¼	TL
5	T19	1½-2½	745	130	164	10000	3110	B5.50/20	P32x6	Own 200	6-3⅛x3¼	Own	U 4 Op	Own	SF	H	6.2	40.7	6x2¼x¼	TL
6	T25	1½-2	1200	130	152	9000	3375	B6.00/20	B7.50/20	Buick	6-3⅛x4⅛	Own	U 4 No	Own	S½	H	5.83	29.6	6x2¼x¼	TL
7	T23	2-3	745	131	157	10000	3080	B6.50/20	DB6.50/20	Own 200	6-3⅛x3¼	Own	U 4 Op	Own	SF	H	6.2	40.7	6x2¼x¼	TL
8	T26	2-3	1210	130	164	11000	3685	B6.50/20	B8.25/20	Own 257	6-3⅛x4⅛	Own	U 4 No	Own	SF	H	5.67	35.7	6¼x2¼x¼	TL
9	T30	2-3	1545	141	164	12500	4490	P30x5	DP30x5	Buick	6-3⅛x4⅛	Own	U 4 No	Own	S½	H	5.63	28.6	6¼x3x¼	TL
10	T31	2½-4	1695	141	181	14000	4695	P32x6	DP32x6	Own 257	6-3⅛x4⅛	Own	U 4 No	Own	SF	H	5.63	35.5	6¼x3x¼	TL
11	T42	2½-4	1845	141	181	15000	4725	P32x6	DP32x6	Buick	6-3⅛x4⅛	Own	U 4 No	Own	S½	H	6.57	33.4	6¼x3x¼	TL
12	T44	3-4½	2065	141	181	16000	5095	P34x7	DP34x7	Buick	6-3⅛x4⅛	Own	U 4 No	Own	2½	R	8.05	40.9	6¼x3x¼	TL
13	T45	3-4½	1865	141	181	16000	4910	P32x6	DP32x6	Own 257	6-3⅛x4⅛	Own	U 4 No	Own	SF	R	6.57	41.4	6¼x3x¼	TL
14	T51	4-5½	2465	155	200	19000	5955	P34x7	DP34x7	Own 331	6-3¾x5	Own	U 4 No	Own	SF	R	6.57	40.6	9x3½x¼	TL
15	T60	5-6½	3035	154	200	22000	6925	P34x7	DP34x7	Buick	6-3¾x5	Own	U 4 Op	Own	WF	R	8.50	52.5	9x3½x¼	TL
16	T61	5-6½	3695	154	200	22000	7305	B9.00/20	DB9.00/20	Own 400	6-4½x5	Own	U 5 Op	Own	WF	R	8.50	69.9	9x3½x¼	TL
17	T82	5-7	3795	155	201	24000	7500	B9.00/20	DB9.00/20	Own 331	6-3¾x5	Own	U 4 A 3	Own	WF	R	10.2	143	9x3¼x¼	TL
18	T83	5-7½	4190	155	201	25000	7690	B9.00/20	DB9.00/20	Own 400	6-4½x5	Own	U 5 Op	Own	WF	R	9.00	74.0	9x3¼x¼	TL
19	T85	6-8	5600	177	204	30000	10630	B9.75/20	DB9.75/20	Own 525	6-4½x5½	Own	U 4 Op	Own	2F	R	8.50	53.3	9¼x4¼x¼	L
20	T110	8-12	8110	171	204	40000	12800	B10.50/24	DB10.50/24	Own 616	6-4⅞x5½	Own	U 4 A 3	Own	2F	R	9.30	116.	9¼x4¼x¼	L
21	Gramm AX4	1-1½	795	131	157	8000	3350	B6.50/20	B6.50/20	Con W10	4-3⅞x4¼	WG TA	U 4 No	Tim 53200H	BF	H	5.66	36.3	6x2¾x¼	C
22	AX6	1-1½	895	131	157	8000	3550	B6.50/20	B6.50/20	Con 25A	6-3⅝x4	WG T9	U 4 No	Tim 53200H	BF	H	5.66	36.3	6x2¾x¼	C
23	BX4	1½-2	895	131	210	10000	3525	B6.00/20	DB6.00/20	Con W10	4-3⅞x4¼	WG T9	U 4 No	Tim 53200H	BF	H	6.2	39.6	6x2¾x¼	L
24	BX6	1½-2	995	131	210	10000	3725	B6.00/20	DB6.00/20	Con 25A	6-3⅝x4	WG T9	U 4 No	Tim 53200H	BF	H	6.2	39.6	6x2¾x¼	L
25	BXF	1½-2	149	131	210	10000	4000	B6.00/20	DB6.00/20	Lyc ASD	6-3¾x4½	BL 314	U 4 No	Tim 53200	BF	H	5.6	37	6x2¾x¼	L
26	B	2-2½	1295	140	196	12000	4150	B6.50/20	DB6.50/20	Lyc 4SL	6-3¼x4½	Co A4J	U 4 No	Tim 54200H	BF	H	5.83	37.1	6x2½x¼	C
27	BF	2-3	1695	140	210	12000	4300	B6.50/20	DB6.50/20	Lyc ASD	6-3¾x4½	BL 314	U 4 No	Tim 54200	BF	H	5.8	37.1	6x2½x¼	C
28	CX4	2-3	1095	131	210	12000	3950	B6.50/20	DB6.50/20	C n W20	4-4⅛x4¼	WG T9	U 4 No	Tim 54200H	BF	H	5.8	37.0	10x2¾x¼	B
29	CX6	2-3	1295	131	210	12000	4150	B6.50/20	DB6.50/20	Con 16C	6-3⅜x4⅛	WG T9	U 4 No	Tim 54200H	BF	H	5.8	37.0	10x2¾x¼	B
30	C	2-3	1795	160	224	14000	4820	B7.00/20	DB7.00/20	Lyc A8	6-3⅜x4⅛	BL 314	U 4 No	Tim 54200 H	BF	H	5.8	37.1	7x2½x¼	C
31	CXH	2-3	1345	131	210	13400	4300	B6.50/20	DB6.50/20	Her JXC	6-3¾x4½	BL 234	U 4 No	Tim 54200	BF	H	5.8	37.0	10x2¾x¼	B
32	CF	2-3½	1895	160	224	14000	4900	B7.50/20	DB7.50/20	Lyc ASD	6-3¾x4½	BL 314	U 4 No	Tim 54200	BF	H	5.8	37.1	7x2½x¼	C
33	CXF	2-3½	2395	160	224	14000	5100	B7.50/20	DB7.50/20	Con 20R	6-4½x4¾	BL 554	U 4 No	Tim 54200	BF	H	5.8	41.6	7x2½x¼	C
34	D	2½-4	1995	160	224	17000	5100	B7.50/20	DB7.50/20	Lyc ASD	6-3¾x4½	BL 314	U 4 No	Tim 56200H	BF	H	6.1	39.0	7x2½x¼	C
35	DF	2½-4	2695	160	260	17000	5300	B7.50/20	DB7.50/20	Con 21R	6-4⅜x4¾	BL 554	U 4 No	Tim 56200	BF	H	6.1	43.5	7x2½x¼	C
36	EX	3-4	2295	160	224	16300	5200	B8.25/20	DB8.25/20	Con E601	6-3⅞x4½	BL 324	U 4 No	Tim 56200	BF	H	6.1	43.5	7x2½x¼	C
37	E330	3-4½	2595	160	224	20000	5950	B8.25/20	DB8.25/20	Lyc TS	6-3⅛x5	BL 554	U 4 No	Tim 58200H	BF	H	5.5	35.6	12x2½x¼	P
38	ED	3-4½	3995	160	224	20000	6100	B8.25/20	DB8.25/20	Cum Die	4-4⅛x6	BL 554	U 4 No	Tim 58200	BF	H	5.5	35.6	12x2½x¼	P
39	EY190	3	3595	190	190	16000	6750	B7.50/20	DB7.50/20	Con 20R	6-4½x4¾	Co Rus4	U 4 No	Tim 58200H	BF	H	4.5	29.1	8¼x3¼x¼	L
40	GY	4	4345	190	210	18000	7700	B8.25/20	DB8.25/20	Con 21R	6-4⅜x4¾	Co Rus	U 4 No	Wis 69317H	2F	H	4.3	27.9	8¼x3¼x¼	L
41	G	4-6	3695	150	225	24000	7950	B9.00/20	DB9.00/20	Con 21R	6-4⅜x4¾	BL 554	U 4 No	Wis 1237H	2F	H	6.8	49.0	12x2½x¼	P
42	GF	4-6	5590	150	225	24000	9050	B9.75/20	DB9.75/20	Her HXC	6-5¼x6	BL 744	U 4 No	Wis 1237H	2F	H	4.29	15.8	12x2½x¼	P
43	GW	5-7½	5175	157	240	28000	9500	B9.00/20	DB9.00/20	Con 21R	6-4⅜x4¾	BL 554	U 4 No	Wis 1627KW	2F	H	6.3	41.0	7½x3¼x¼	P
44	GWD	5-7½	6495	157	240	30000	10000	B9.00/20	DB9.00/20	Cum H Die.	6-4⅞x6	BL 744	U 4 No	Wis 1737KW	2F	H	5.75	21.2	12x3x¼	P
45	HY	5	6595	210	236	22000	10100	B9 00/20	D.9.00/20	Con 16H	6-4¾x5¾	Fu HU16	U 4 No	Wis12527KW	2F	H	4.0	25.2	8¾x3¼x¼	L
46	G.-P. 35-6	1½-2	1535	156	160	12500	3800	B7.00/20	DB7.00/20	Lyc WTG	6-3x4¾	Fu MKU	U 4 No	Tim 53200H	SF	H	5.37	34.9	8x2½x¼	TL
47	(7) 45-6	2-3	2700	157	161	15500	4300	B7.50/20	DB7.50/20	Lyc 8B	6-3⅜x4½	Fu MLU	U 4 No	Tim 54200H	SF	H	6.35	38.0	8x3x¼	TL
48	(7) 55-6	3-4	3185	154	191	19500	5900	B8.25/20	DB8.25/20	Lyc ASD	6-3¾x4½	Fu JVU	U 5 No	Tim 56200H	SF	H	7.25	55.0	9x3¼x¼	TL
49	(7) 65-6	3½-5	3875	158	195	23500	7100	B9.00/20	DB9.00/20	Lyc TS	6-3⅞x5	Fu VUOG	U 5 No	Tim 58200H	SF	R	7.80	56.0	10x3½x¼	TL
50	75-6	4-6	4915	154	191	28000	7400	B9.75/20	DB9.75/20	Wau SRL	6-4⅝x5½	Fu VUOG	U 5 No	Wis 1137H	2F	R	7.75	65.	11x3½x¼	TL
51	75-8	4-6	4860	174	Op	28000	7500	B9.75/20	DB9.75/20	Lyc AEC	8-3¾x4¾	Fu VUOG	U 5 No	Wis 1137H	2F	R	7.25	51.2	11x3½x¼	TL
52	85-6	5-7	6875	169	Op	28000	9200	B10.50/20	DB10.50/20	Wau 6AB	6-4½x5¾	Fu MHU	U 4 A	Wis 1567W	2F	R	9.00	113.	12x3½x¼	TL
53	95-6	7-10	7850	159	196	31000	10400	B10.50/24	DB10.50/24	Wau 6RB	6-5x5¾	Fu MHU	U 4 A	Wis 19000W	2F	R	10.1	135	14x3½x¼	TL
54	(7) 35T-6	6	1550	152	172	15000	4050	B7.50/20	DB7.50/20	Lyc ASD	6-3¾x4½	Fu MKU	U 4 No	Tim 53200H	SF	H	5.37	34.9	8x2½x¼	TL
55	(7) 45T-6	8	3185	149	171	19500	4425	B8.25/20	DB8.25/20	Lyc TS	6-3⅞x5	Fu JVUOG	U 5 No	Tim 54000H	SF	H	6.35	45.2	8x2½x¼	TL
56	65T-6	10	4170	162	179	23500	7850	B9.00/20	DB9.00/20	Wau SRL	6-4⅝x5½	Fu VUOG	U 5 No	Tim 58200H	SF	R	7.57	55.1	10x3¼	TL
57	65T-8	10	4230	162	179	23000	7850	B9.00/20	DB9.00/20	Lyc AEC	8-3¾x4¾	Fu VUOG	U 5 No	Tim 58200H	2F	R	7.57	55.1	10x3¼	TL
58	75T-6	12	5445	162	179	28000	8850	B9.75/20	DB9.75/20	Wau SRK	6-4⅝x5½	Fu VUDG	U 5 No	Wis 1137W	2F	R	8.1	56.6	11x3¼	TL
59	75T-8	12	5400	162	179	28000	8850	B9.75/20	DB9.75/20	Lyc AED	8-3¾x4¾	Fu VUOG	U 5 No	Wis 1137W	2F	R	9.0	63.7	11x3x¼	TL
60	Hahn-Selden 17	1½	1500	142	162	7900	3750	P32x6	P32x6	Con 18E	6-3⅜x4	BL 20	U 4 No	Tim 52000H	BF	R	5.8	24.1	5⅝x2¾x¼	C
61	317	1½	1610	142	162	7900	3900	P32x6	P32x6	Con 16C	6-3⅜x4⅝	BL 35	U 4 No	Tim 52000H	BF	R	5.8	24.1	5⅝x2¾x¼	P
62	37	2	1935	151	181	10000	4800	P32x6	DP32x6	Con 16C	6-3⅜x4⅝	BL 35	U 4 No	Tim 54200H	BF	R	5.8	31.	5¾x2¾x¼	C
63	39	2½	2920	164	190	13000	5800	P32x6	DP32x6	Con 16R	6-4x4½	BL 35	U 4 No	Tim 56200H	BF	R	6.1	33.	7x3½x¼	C
64	47B	3	3785	151	198	15500	7200	P34x7	DP34x7	Con 18R	6-4x4½	BL 51	U 4 No	Tim 58000H	BF	R	6.8	37.	7x3½x¼	C
65	47D	4	4435	151	198	19500	7800	P36x8	DP36x8	Con 18R	6-4x4½	BL 51	U 5 No	Wis 1237H	2F	R	7.3	43.8	7x3½x¼	P
66	67	5	4975	151	198	23500	8700	P36x8	DP36x8	Con 21R	6-4⅜x4¾	BL 55	A 7 A	Wis 1537H	2F	R	7.1	67.	7x3½x¼	P
67	Hendrickson 178	2½	3350	Op	Op	15300	6500	B8.25/20	DB8.25/20	Wau MK	6-4½x4¾	Fu JVU	U 5 No	Cla B800	2B	R	Opt	Opt	6x2½x¼	P
68	198	3	3800	Op	Op	19500	7000	B9.00/20	DB9.00/20	Wau MK	6-4½x4¾	Fu JVU	U 5 No	Cla B800	2F	R	Opt	Opt	6x2½x¼	P
69	U6-244	4	5500	Op	Op	24000	8200	B9.75/20	DB9.75/20	Wau 6SRL	6-4⅜x5½	BL 60-7	A 7 No	Tim 76730	2F	R	Opt	Opt	8x3x¼	P
70	V6-325		6700	Op	Op	24000	10500	B9.75/20	DB9.75/20	Wau RB	6-5x5¾	BL 734	U 4 No	Tim 76730H	2F	R	Opt	Opt	8x3x¼	.....
71	Hug 23	2	1785	146	191	12420	5620	B7.00/20	DB7.00/20	Bud H298	6-3¾x4½	Fu MLU	U 4 No	Cla B611	SF	H	5.66	36.	8x3x¼	T
72	61	2	3020	111	111	14210	5400	B8.25/20	DB8.25/20	BudH298	6-3¾x4½	BL 51-4	U 4 No	Wis 6600	2F	H	6.92	37.	6x3x¼	I
73	82	2½	3870	128	128	19300	7000	B9.00/20	DB9.00/20	Bud K369	6-4¼x4¾	Fu VUOG	U 5 No	Wis 1237Q	2F	H	8.95	62.	7x3⅝x¼	T
74	42	3	2175	146	201	15700	6500	B8.25/20	DB8.25/20	Bud H298	6-3¾x4½	Fu MLU	U 4 No	Cla B800	SF	H	6.37	40.5	8x3x¼	T
75	418	3	5070	158	158	19620	8500	B9.75/20	B12.75/20	Bud K428	6-4¾x4¾	FuMRUAy	U 4 A 3	Wis 1237QH	2F	H	8.95	119	8x3x¼	T
76	87K	3½	4265	128	128	22400	7600	B9.75/20	DB9.75/20	Bud K428	6-4¾x4¾	BL 55-7	A 7 No	Wis 1237Q	2F	H	8.95	85.	7x3⅝x¼	I
77	43	3½	3380	146	201	22500	7300	B9.75/20	DB9.75/20	Bud K428	6-4¾x4¾	Fu VUOG	U 5 No	Wis 1237QH	2F	H	8.95	62.	8x3x¼	T
78	87Q	5	5040	144	144	27875	8500	B10.50/20	DB10.50/20	Bud K428	6-4¾x4¾	Fu MH	A 8 No	Wis 1737K	2F	H	9.16	99	8x4x¼	I
79	Indiana 85	1½	885	141	169	10000	3950	B6.50/20	DB6.50/20	Her JXB	6-3⅝x4¼	BL 124	U 4 No	Tim 53200H	SF	H	5.66	35.1	7¼x2½x¼	T
80	85DR	1½	1190	141	186	11500	4200	B6.50/20	DB6.50/20	Her JXB	6-3⅝x4¼	BL 325	U 5 No	Wis 4516L	2F	R	6.06	40.3	7¼x2½x¼	T
81	95	2	1095	141	186	12000	4400	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4 No	Tim 54300H	SF	H	5.85	36.2	7¼x2½x¼	T
82	95DR	2-2½	1275	141	186	15000	4650	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 224	U 4 Op	Wis 4916L	2F	H	6.66	41.2	7¼x2½x¼	T
83	105	2½	1775	156	200	16000	5600	B8.25/20	DB8.25/20	Her JXC	6-3¾x4¼	BL 334	U 4 Op	Tim 56200H	SF	H	7.25	48.3	8¼x3x¼	T
84	106DR	2½	1850	156	200	16000	6000	B7.50/20	DB7.50/20	Her WXC	6-4x4½	BL 324	U 4 Op	Wis 4916L	2F	R	6.06	40.3	8x3x¼	T
85	17	2½	2450	170	224	18000	6600	B8.25/20	DB8.25/20	Her YXC	6-4⅜x4¼	BL 334	U 4 Op	Tim 58205H	SF	R	6.14	37.8	8¼x3x¼	T
86	17DR	3	2675	170	224	19000	6700	B8.25/20	DB8.25/20	Her YXC	6-4⅜x4¾	BL 334	U 4 Op	Wis 70000	2F	R	6.28	38.6	8¼x3x¼	T
87	19DR	3½	3400	170	224	22000	8100	B9.00/20	DB9.00/20	Her YXC	6-4⅜x4¾	BL 524	U 4 Op	Wis 1237H	2F	R	7.2	52.3	8¼x3x¼	T
88	43DR	4-5	4300	170	224	25000	8500	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL 524	U 4 Op	Wis 1627KH	2F	R	6.96	50.7	8¼x3x¼	T
89	45DR	5	4800	170	224	25000	8700	B9.75/20	DB9.75/20	Her R C	6-4⅝x5¼	BL 534	U 4 Op	Wis 1737H	2F	R	7.14	45.4	8¼x3x¼	T
90	47DR	5-7	6500	188	224	28000	10500	B10.50/20	DB10.50/20	Cum 6H Die	6-4⅞x6	BL 735	A 5 No	Wis 1910W	2F	R	7.16	45.0	8¼x3x¼	T
91	International (8) M2	1	850	118	118	7000	3180	B6.50/20	B6.50/20	Wau XAH	4-3⅝x4½	WG T9	U 4 No	Own 713	SF	H	6.16	39.5	11x2¾x¼	D
92	A2	1½	615	136	160	8000	2935	B6.00/20	B6.00/20	Wau XAH	4-3⅝x4½	WG T-9	U 4 No	Own 702	SF	H	6.16	39.5	5⅞x2¾x¼	T
93	B2	1½	665	136	136	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3⅝x4½	MM "O"	U 3 No	Own 701	SF	H	6.16	47.3	5⅞x2¾x¼	T
94	A3	1½	795	136	160	10000	3572	P30x5	P32x6	Lyc SAH	6-3¼x4½	WG T9	U 4 No	Own 710	SF	H	5.28	33.8	7x2¾x¼	T
95	A3½	1½	970	136	160	10100	3600	B6.50/20	DB6.50/20	Lyc SAH	6-3¼x4½	WG T7	U 4 No	Own 710	SF	H	5.28	33.8	7x2¾x¼	T
96	AL3	1½	895	138	164	10000	4032	B6.00/20	DB6.00/20	Lyc 4SLH	6-3¼x4½	WG T7	U 4 No	Own 800	S½	H	6.50	42.9	6½x2¼x¼	T
97	A4	2	1750	145	185	14200	5221	P32x6	DP32x6	Own FBB	6-3⅝x4½	OwnH-5	U 5 No	Own 1000	SF	H	6.50	47.8	7x3¾x¼	T
98	A5	3	2350	156	210	17000	5895	P34x7	DP34x7	Own FBB	6-3⅝x4½	OwnH-5	U 5 No	Own 10.2	SF	H	7.16	64.7	8x3⅜x¼	T
99	A6	3	2675	156	210	19000	6120	P34x7	DP34x7	Own FBB	6-3⅝x4½	OwnH-5	U 5 No	Own 1150	2F	H	8.5	76.8	8½x3¾x¼	T
100	W2	3½	3900	148	200	22000	8400	S36x5	S36x10	HaS 151	4-4¼x5½	Own H-6	U 5 No	Own 1200	2F	H	6.85	83.9	7x3x¼	T
101	W3	5	4850	160	235	28000	10125	S36x6°	S40x12°	HaS 152	4-4¼x5½	OwnH -7	U 5 No	Own 1300	2F	H	7.85	70.5	8½x3¾x¼	T
102	A7	5-7½	6200	160	225	36000	11590	B9.75/20	DB9.75/20	Own FDB	6-4½x5½	Own H-7	U 5 No	Own 1301	2F	H	6.37	57.2	12½x3¾x⅝	T
103	A8	7½	6300	160	225	36900	11590	B9.75/20	DB9.75/20	Own FEB	6-5x5½	Own H-7	U 5 No	Own 1301	2F	H	6.37	57.2	12½x3¾x⅝	T
104	Kenworth 86	1½-2	1120	141	165	10000	3400	B7 00/20	B7.00/20	Her JXA	6-3⅜x4¼	BL 214	U 4 ...	Cla B370	SF	H	5.4	34.6	6½x3¾x¼	T
105	88	2	1480	146	200	13400	4400	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 234	U 4 Op	Tim 54300	SF	H	5.83	37.4	8x3x¼	T
106	101B	2-2½	2050	144	186	13400	4700	B7.50/20	DB7.50/20	Bud H298	6-3¾x4½	BL 234	U 4 ...	Tim 54300H	SF	H	5.83	38.4	5½x3¾x¼	T
107	89	2½	1670	146	200	15000	4600	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 234	U 4 Op	Tim 56200	SF	H	6.17	39.5	8x3x¼	T
108	127	2½-3	2600	154	202	16300	5490	B8.25/20	DB8.25/20	Her WXC	6-4x4½	BL 324	U 4 ...	Tim 56200H	SF	H	6.16	40.7	8x2¼x¼	T
109	90	3	1820	146	200	18200	5500	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 234	U 4 Op	Tim 58205	SF	H	6.83	43.8	8x3x¼	T
110	146B	3-4	3300	158	206	19500	5960	B9.00/20	DB9.00/20	Bud K393	6-4¼x4¾	BL 334	U 4 Op	Tim 58205H	SF	H	6.83	43.4	8x2¼x¼	T
111	166B	3½-4	3850	156	204	20700	6890	B9.00/20	DB9.00/20	Bud K393	6-4¼x4¾	BL 334	U 4 Op	Tim 58205H	SF	H	6.83	43.4	7-9x3x¼	T
112	166A	3½-4	4330	156	204	20700	6890	B9.00/20	DB9.00/20	HaS 147	6-4x5	BL 334	U 4 Op	Tim 58205H	SF	H	6.83	43.4	7-9x3x¼	T
113	180	4-5	4675	155	221	25600	7710	B9.75/20	DB9.75/20	Her YXC2	6-4½x4¾	BL 1554	U 4 A 3	Tim 75720H	2F	H	7.33	105.	7-9x3x¼	T
114	241	5-7	5450	169	221	27800	9000	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL 714	U 4 A 3	Tim 76720W	2F	H	7.33	85.5	7-9x3x¼	T
115	241A	5-7	6500	169	228	27800	9500	B9.75/20	DB9.75/20	HaS 160	6-4½x5½	BL 714	U 4 A 3	Tim 76720W	2F	H	7.33	85.5	8x3x¼	C
116	241B	5-7	6150	174	228	27800	9500	B9.75/20	DB9.75/20	Bud GL-6	6-4½x6	BL 714	U 4 A 3	Tim 76720W	2F	H	7.33	85.5	8x3x¼	C
117	241C	5-7	7200	174	228	27800	10000	B9.75/20	DB9.75/20	HaS 175	6-5x6	BL 714	U 4 A 3	Tim 76720W	2F	H	6.38	86.5	8x3x¼	C
118	Kleiber 80	1½-2½	1300	140	160	9300	3625	B6.50/20	DB6.50/20	Con 18E	6-3⅝x4	BL 224	U 4 No	Tim 53200H	BF	H	5.8	34.0	5⅝x3¼x¼	C
119	100	2-3½	1750	170	180	11400	4400	B7.00/20	DB7.00/20	Con 16C	6-3⅜x4⅝	BL 314	U 4 No	Tim 54200H	BF	H	6.16	38.7	7½x3x¼	T
120	120	2½-4½	2350	170	180	13200	5150	B7.50/20	DB7.50/20	Con 16R	6-4x4½	BL 314	U 4 No	Tim 56200H	SF	H	6.17	33.4	7½x3x¼	T
121	140	3-5½	3300	180	190	19500	6500	B9.00/20	DB9.00/20	Con 18R	6-4x4½	BL 314	U 4 No	Eat 2413H	2F	H	7.1	38.7	7½x3x¼	T
122	210	4-6	4000	190	192	23400	7100	B9.75/20	DB9.75/20	Con 20R	6-4½x4¾	BL 55	A 7 No	EatDR2412H	2F	R	7.25	77.0	7½x3x¼	C
123	260	7	5000	206	210	26000	9000	B9.75/20	DB9.75/20	Con 21R	6-4⅝x4¾	BL 714	A 4 A 3	Eat 65041W	2F	R	8.5	91.0	8x3½x¼	C

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	Auxiliary Type
1	411	4.5	270	40.8	83–2100	L	G	C	4–2½	9⅞	PC	Bu	Zen	V	AL	AL	D.Ow	Lo	Blo	Tim 26450H	Ros	L4IH	618a	FX	144	94½	34	42x3	56x3	½
2	411	4.5	270	40.8	83–2100	L	G	C	4–2½	9⅞	PC	Bu	Zen	V	AL	AL	D.Ow	Lo	Blo	Tim 27450H	Ros	L4IH	568a	FX	144	94½	34	42x3	56x4	½
3	200	4.9	127	26.3	60–3000	L	C	B	3–2⅞ r	5⅝	CC	No	Ma	M	DR	DR	P.Ow	Lo	MM	Own	Jac	B4IM	211	p	4I	87	48	34	38x2	50¼ x2½	N
4	200	5.1	132	26.3	66–3200	L	C	B	3–2⅞ r	5⅞	FP	No	Ma	M	DR	DR	P.Ow	Lo	Own	Own	Jac	O4IM	175	p	2I	85½	50¼	37	36x1¾	45x2½	N
5	200	5.1	132	26.3	66–3200	L	C	B	3–2⅞ r	5⅞	FP	No	Ma	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	B4IM	290	a	TX	87	48	34	38x2	50¼ x2½	N
6	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	239	pa	TX	87	48	34	38x2	50¼ x2½	N
7	200	5.1	132	26.3	66–3200	L	C	B	3–2⅞ r	5⅞	FP	No	Ma	M	DR	DR	P.Ow	Lo	Cle	Own	Jac	O4IM	175	p	2I	85½	50¼	37	36x1¾	45x2½	N
8	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	290	a	TX	87	48	34½	38x2	50¼ x2½	N
9	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	288	a	TX	107	59	34	38x2½	50x3	½
10	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	345	a	TX	107	59	34	38x2½	50x3	½
11	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	320	a	TX	107	59	34	38x2½	50x3	½
12	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	320	a	TX	107	59	34	38x2½	50x3	½
13	257	4.5	185	28.3	76–2500	H	G	C	4–2⅝	8½	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	345	a	TX	125	70	34	38x2½	50x3	½
14	331	4.4	230	33.7	94–2500	H	G	A	4–2⅛	8¾	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	379	a	TX	125	70	34	40x3	50x3	½
15	331	4.4	230	33.7	94–2500	H	G	C	4–2⅛	8¾	PC	Ha	Ma	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	418	a	TX	125	69¼	34	40x3	54x3	½
16	400	4.6	296	40.9	110–2300	H	G	A	4–2..7	8¾	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	449	a	TX	125	69¼	34	40x3	54x3	½
17	331	4.4	230	33.7	94–2500	H	G	A	4–2⅛	8¾	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Cle	Own	Jac	B4IM	483	a	TD	125	70	34	40x3	54x3	½
18	400	4.6	296	40.9	110–2300	H	G	A	4–2..7	8¾	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	70	34	40x3	54x3	½
19	525	4.5	380	48.6	128–2100	H	C	A	7–2¾	14⅜	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	594	a	TX	137	82	34	50x3½	54x3	½
20	616	4.5	450	57.0	149–2100	H	C	A	7–2¾	14⅜	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IA	638	a	TX	137	82	34	50x3½	.....	N
21	200	4.7	121	24.0	50–2800	L	C	A	3–2⅛	5⅞	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81½	51¾	34	36x2¼	45x2½	½
22	214	5.3	142	27.4	71–3200	L	C	A	4–2⅜	6¾	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81½	51¾	34	36x2¼	45x2½	½
23	200	4.7	121	24.0	50–2800	L	C	A	3–2⅛	5⅞	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51¾	34	36x2¼	45x2½	½
24	214	5.3	142	27.3	71–3200	L	C	A	4–2⅜	6¾	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51¾	34	36x2¼	45x2½	½
25	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9¼	PC	No	Til	M	AL	AL	P.BL	Pe	Blo	Tim 30000	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
26	224	4.7	146	25.3	61–2900	L	G	C	4–2⅝	8¼	PC	Mo	Zen	V	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	94	60⅜	34	40x2¼	50x2½	½
27	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9¼	PC	No	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000	Ros	L4IH	260	p	FD	94	60⅜	34	40x2¼	50x2½	½
28	227	4.7	136	27.2	55–2400	L	G	C	3–2⅛	5⅞	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	269	p	FD	81	51¾	34	36x2¼	45x2½	½
29	248	5.0	150	27.3	70–3000	L	C	C	7–2⅜	10	FP	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81	51¾	34	36x2¼	45x2½	½
30	278	4.7	182	31.5	85–3300	L	G	A	4–2⅝	9¼	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	120	77¼	34	42x2¼	56x3	½
31	282	5.4	176	33.7	73–2800	L	G	C	7–2½	10⅜	PC	Mo	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81	51¾	34	36x2¼	45x2½	½
32	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9¼	P	No	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000	Ros	L4IH	260	p	FD	120	77¼	34	42x2¼	56x3	½
33	380	4.3	238	40.8	88–2400	H	C	C	7–2¾	13⅛	PC	No	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 31000	Ros	L4IH	260	p	FD	120	77¼	34	42x2¼	56x3	½
34	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9¼	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 33000H	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	56x3	½
35	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13⅛	PC	No	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 33000	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	56x3	½
36	318	4.5	203	36.	80–2700	L	G	C	7–2¾	12⅛	CC	Mo	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 33000H	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	50x3	½
37	353	4.8	245	36. 2	90–2700	L	G	C	7–2¾	12⅛	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 33000H	Ros	L4IHV	375	a	FD	127	74¼	34	42x2¼	56x3	½
38	448	17.	280	38.0	83–1800	H	G	N	5–3¼	12	P	En	No	M	CI	LN	D.BL	Pe	Blo	Tim 33000	Ros	L4IHV	375	a	FD	127	74¼	34	42x2½	56x3	½
39	380	4.3	238	40. 8	88–2400	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Eat 423	Ros	L4IHV	375	a	FD	156	90	41½	44x2½	60x3	½
40	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Eat 423	Ros	L4IHV	375	a	FD	176⅞	119⅛	41½	44x2½	60x3	½
41	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	D.BL	Pe	Blo	Tim 35000	Ros	L4IHV	466	a	FD	98	67	34	42x2½	52x3	½
42	779	4.5	505	66. 2	143–1600	L	G	H	7–3½	17	PC	No	Til	M	AL	AL	D.BL	Pe	Blo	Tim 35000	Ros	L4IHV	466	a	FD	98	67	34	42x2½	52x3	½
43	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	D.BL	Pe	Blo	Tim 27450	Ros	W84IA	576	a	FD	128½	73¾	36	46x3	58x3½	½
44	672	17.	440	57.0	125–1800	H	G	N	7–3¼	16½	P	En	No	M	CI	LN	D.BL	Pe	Blo	Tim 27450	Ros	W84IA	576	a	FD	128½	73⅞	36	46x3	58x3½	½
45	611	4.1	382	54.1	127–2300	L	G	A	7–3	13⅛	PC	Pe	Zen	M	AL	AL	D.Fu	Pe	Blo	Tim 27450	Ros	W84IA	576	a	FD	198½	141½	41½	44x3	60x4	½
46	201	5.5	140	21. 6	63–2900	L	G	C	4–2¾	7	PC	No	Zen	M	AL	AL	P.BB	Ch	MM	Tim 30000H	Ros	L4IH	268	a	TX	Opt	71	31	40x2½	54x3	½
47	241	5.1	160	27. 3	65–2800	L	G	C	4–2⅝	8¼	PC	No	Str	M	AL	AL	D.Fu	Ow	MM	Tim 30000H	Ros	L4IH	268	a	TX	Opt	72	31	40x2½	54x3	½
48	298	5.1	198	33.4	85–2900	L	G	C	4–2⅝	9¼	PC	Mo	Str	M	AL	AL	D.Fu	Ow	MM	Tim 31000H	Ros	L4IH	342	a	CD	Opt	69	31	40x2½	58x3	½
49	353	4.6	252	36. 5	97–2750	L	G	C	4–2¾	10	PC	Mo	Str	M	AL	AL	D.Fu	Ow	MM	Tim 33000H	Ros	L4IH	394	a	CD	Opt	73½	34	40x3	58x3½	½
50	462	4.6	300	45. 9	100–2400	L	G	C	4–3	13⅞	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 35100H	Ros	L4IH	493	a G	CD	Opt	70	34	40x3	58x3½	½
51	420	5. 2	300	45. 0	130–2800	L	G	C	5–2¾	11⅛	PC	Mo	Str	M	AL	AL	D.Fu	Ow	MM	Tim 35100H	Ros	L4IH	493	a G	CD	Opt	86	34	40x3	58x3½	½
52	549	4.5	335	48. 6	100–2000	L	G	C	4–3½	11⅜	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim27050TW	Ros	B4IM	566	a G	CD	Opt	81	34	40x3	58x4	½
53	677	4.4	460	60. 0	125–2000	L	G	A	4–3½	11¾	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim27050TW	Ros	B4IM	547	a G	CD	Opt	66	34	40x3	58x4	½
54	298	5.1	198	33.5	85–2900	L	G	C	4–2⅝	9¾	PC	No	Zen	M	AL	AL	P.BB	Ch	MM	Tim 30000H	Ros	L4IH	268	a	TX	Opt	60	31	40x2½	54x3	½
55	353	4.6	252	36. 5	97–2750	L	G	C	4–2¾	10	PC	No	Str	M	AL	AL	D.Fu	Ch	MM	Tim 31000H	Ros	L4IH	268	a	FD	Opt	60	31	40x2½	54x3	½
56	462	5.1	300	45. 4	100–2400	L	G	C	7–3	13⅞	PC	No	Str	M	AL	AL	D.Fu	Ch	MM	Tim 33000H	Ros	L4IH	394	a	FD	Opt	66	34	40x3	58x3½	½
57	420	5. 2	300	45.	130–2800	L	G	C	5–2¾	11⅛	PC	No	Zen	M	AL	AL	D.Fu	Ch	MM	Tim 33000H	Ros	L4IH	394	a	FD	Opt	66	34	40x3	58x3½	½
58	517	4.5	340	51. 3	110–2500	L	G	C	7–3	13⅞	PC	No	Str	M	AL	AL	D.Fu	Ch	MM	Tim35000TW	Ros	W2IM	574	a	FD	Opt	66	34	40x3	58x3½	½
59	420	5. 2	300	45.	130–2800	L	G	C	5–2¾	11⅞	PC	No	Zen	M	AL	AL	D.Fu	Ch	MM	Tim35000TW	Ros	W2IM	574	a	FD	Opt	66	34	40x3	58x3½	½
60	214	5.0	137	27. 3	66–3000	L	G	A	7–2⅛	8¼	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 11703H	Ros	L4IH	380	a	TX	110	64½	34	41x2¼	50x2½	½
61	248	5.0	150	27. 3	65–2760	L	G	C	7–2¾	10¼	FP	No	Str	V	DR	DR	D.BL	Ch	Blo	Tim 11703H	Ros	L4IH	380	a	TX	110	64½	34	41x2¼	50x2½	N
62	248	5.0	150	27. 3	65–2760	L	G	C	7–2¾	10¼	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 12703H	Ros	L4IH	452	a	TX	120	73½	34	41x2¼	50x2½	N
63	311	4.1	196	38. 4	73–2400	H	C	N	7–2¾	13⅛	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 14703H	Ros	L4IHV	578	a	TD	120	77½	34	41x2¼	50x2½	N
64	339	4. 2	212	38. 4	82–2400	H	C	N	7–2¾	13⅛	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 15733H	Ros	L4IHV	658	a	TD	110	71¼	34	40x2½	56x3	½
65	339	4. 2	212	38. 4	82–2400	H	C	N	7–2¾	13⅛	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 15733H	Ros	L4IHV	768	a	TD	110	71¼	34	40x2½	56x3	½
66	275	4. 2	268	45. 9	100–2400	H	C	N	7–2¾	13⅛	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 16710H	Ros	4IHV	768	a	TD	110	71¼	34	40x2½	56x3½	½
67	381	4.6	240	40. 8	87–2500	L	G	C	7–2⅝	12½	PC	Wa	Zen	M	AL	AL	D.Fu	Ch	Spi	Cla F318	Ros	L4IHV	490	G	TD	Opt	Opt	34	40½x3½	50½x3	N
68	381	4.6	240	40. 8	87–2500	L	G	C	7–2⅝	12½	PC	Wa	Zen	M	AL	AL	D.Fu	Ch	Spi	Cla F318	Ros	L4IHV	490	G	TD	Opt	Opt	34	40½x3½	50½x3	N
69	462	4.6	300	45. 9	97–2000	L	G	C	7–3	13⅞	PC	Wa	Zen	M	AL	AL	D.BL	Ch	Spi	Tim 27450	Ros	Ws41A	690	a	TX	Opt	Opt	34	43x3½	53x3½	N
70	677	4.7	440	60. 0	126–1850	L	G	C	4–3½	10⅞	PC	Wa	Zen	M	AL	AL	dp.BL	Ch	Blo	Tim27450TW	Ros	W84IA	690	a	TX	Opt	Opt	34	43x3½	66x4	½
71	298	5.3	200	33.7	80–2800	L	C	C	7–3	9⅞	PC	Pe	Zen	M	AL	DR	P.BB	Yo	Blo	Cla F318	Ros	L4IH	318	p	CD	81	61	31½	41x2½	54½x3	½
72	298	5.3	200	33.7	80–2800	L	C	C	7–3	9⅞	PC	Pe	Zen	M	AL	DR	D.BL	Yo	Blo	Shu 550–74–S	Ros	W2IM	477	G	CD	76	52	34½	41¼x2½	48¼x2½	½
73	369	4.8	234	39. 6	99–2800	L	G	B	7–3	11½	PC	Pe	Zen	M	AL	DR	D.Fu	Yo	Blo	Shu 610–103	Ros	W2IM	420	G	CD	94¼	70	34½	41¼x2½	48½x3	½
74	298	5.3	200	33.7	80–2800	L	C	C	7–3	9¼	PC	Pe	Zen	M	AL	DR	P.BB	Yo	Blo	Cla F318	Ros	L4IH	322	p	CD	81	61	31½	41x2½	54½x3	½
75	428	4. 8	280	45. 9	107–2600	L	G	B	7–3	11½	PC	Pe	Zen	M	AL	AL	D.Fu	Yo	Blo	Shu 632-5	Ros	L4IH	620	p G	CD	115	72½	31½	41½x2½	54½x3	½
76	428	4. 8	280	45. 9	107–2600	L	G	B	7–3	11½	PC	Pe	Zen	M	RB	....	D.BL	Yo	Blo	Shu 610–103	Ros	W2IM	420	G	TD	94¼	70¾	34½	41½x2½	48½x3	½
77	428	4. 8	280	45. 9	107–2600	L	G	B	7–3	11½	PC	Pe	Zen	M	AL	AL	D.Fu	Yo	Blo	Shu 632-3	Ros	L4IH	620	p G	CD	96½	64	31½	41½x2½	54½x3	½
78	428	4. 8	280	45. 9	107–2600	L	G	B	7–3	11½	PC	Pe	Zen	M	RB	....	D.Fu	Yo	Blo	Shu 610–103	Ros	W2IM	360	G	TD	111	86½	35	41½x2½	48½x3½	½
79	263	5.0	160	31. 5	68–2800	L	G	C	7–2½	10⅜	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Tim 30020H	Ros	L4IH	249	G	TX	92	56	34	37x2¼	54x2½	N
80	263	5.0	160	31. 5	68–2800	L	G	C	7–2½	10⅜	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Tim 30020H	Ros	L4IH	316	G	TX	92	56	34	37x2¼	54x2½	N
81	282	5.3	176	33. 7	73–2800	L	G	A	7–2½	10⅜	PC	No	Str	M	AL	AL	P.BB	Yo	Spi	Tim 31020	Ros	L4IH	353	G	TX	92	56	34	37x2¼	54x2½	N
82	282	5.3	176	33. 7	73–2800	L	G	A	7–2½	10⅜	PC	No	Str	M	AL	AL	P.BB	Yo	Spi	Tim 31020	Ros	L4IH	353	G	TX	102	56	34	37x2¼	54x2½	N
83	282	5.3	176	33. 7	73–2800	L	G	A	7–2½	10⅜	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5572	Ros	L4IHV	383	G	TX	108	69	34	40x2½	54x3	½
84	339	4.7	216	38. 4	76–2400	L	G	A	7–2⅝	13¼	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5572	Ros	L4IHV	353	G	CD	108	69	34	40x2½	54x3	½
85	428	4. 4	283	45. 9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15582	Ros	L4IHV	398	G	CD	142	83	34½	40x2½	54x3	½
86	428	4. 4	283	45. 9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15582	Ros	L4IHV	398	G	CD	142	83	34½	40x2½	54x3	½
87	428	4. 4	283	45. 9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15582	Ros	L4IHV	398	G	CD	142	83	34½	40x2½	54x3	½
88	501	4. 8	330	48. 6	110–2200	L	G	A	7–3	12½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34½	40x2½	54x3	½
89	529	4. 9	350	51. 3	115–2200	L	G	A	7–3	12½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34¼	40x2½	54x3	½
90	672	17.	440	57.0	125–1800	H	G	N	7–3¼	2	CC	En	No	M	CI	LN	dp.BL	Yo	Spi	Shu 1633W	Ros	W84IA	560	G	CD	144	90	34	40x3	54x3	½
91	186	4.6	124	21.	39–2400	L	G	C	3–2	6⅞	FP	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 104	Ros	B4IM	217	Pa	TX	66⅞	35½	32½	40x2	46x2½	N
92	186	4.6	124	21.	39–2400	L	G	C	3–2	6⅞	FP	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 101	Ros	B4IM	212	P	2I	93⅜	53⅜	32½	40x2	46x2½	N
93	186	4.6	124	21.	39–2400	L	G	C	3–2	6⅞	FP	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 101	Ros	B4IM	212	P	2I	93⅜	53⅜	32½	40x2	46x2½	N
94	224	4.7	138	25. 3	54–2700	L	G	A	4–2⅜	8⅛	PC	No	Zen	M	DR	DR	P.Ro	Mo	MM	Own 105	Ros	B4IM	287	P	2I	93⅜	53⅜	32½	40x2	46x2½	N
95	224	4.7	138	25. 3	54–2700	L	G	A	4–2⅜	8⅛	PC	No	Zen	M	DR	DR	P.Ro	Mo	MM	Own 200	Ros	B4IM	302	P	2I	93⅜	53⅜	32½	40x2¼	46x2½	N
96	224	4.7	138	25. 3	54–2700	L	G	A	4–2⅜	8⅛	PC	No	Zen	V	DR	DR	P.Ow	Mo	MM	Own 200	Ros	B4IM	295	Pa	2I	98½	55⅜	32	40x2¼	52x2½	N
97	279	4.6	176	31. 5	67–2600	H	G	C	7–2½	13⅛	FP	Ha	Zen	M	DR	DR	P.Ow	Mo	MM	Own 251	Ros	B4IM	378	Pa	2I	104	61½	34	42x3	54x3	¼
98	279	4.6	176	31. 5	67–2600	H	G	C	7–2½	13⅛	FP	Ha	Zen	M	DR	DR	P.Ow	Mo	MM	Own 300	Ros	B4IM	430	Pa	2I	115	72½	34	42x3	56x3	¼
99	279	4.6	176	31. 5	67–2600	H	G	C	7–2½	13⅛	FP	Ha	Zen	M	DR	DR	P.Ow	Mo	MM	Own 300	Ros	B4IM	430	Pa	2I	115	72½	34	42x3	56x3	¼
100	312	4. 0	200	28. 9	98–2200	H	C	A	3–2⅜	8¾	HS	Zen	V	RB	DR	DR	P.Ow	Ow	Own	Own 400	Own	BO4IM	710	Pa	2I	106½	73¼	34	41½x3	56x3½	¼
101	390	3. 8	240	36. 1	69–1800	H	C	A	3–3	8⅜	FP	HS	Zen	V	RB	DR	P.Ow	Ow	Ow	Own 500	Own	BO4IM	794	Pa	2I	120	81⅞	34	44x3	58x4	¼
102	525	4.5	312	48. 6	98–1800	H	G	C	7–3¼	17¾	FP	Ha	Zen	M	DR	DR	P.Ro	Mo	MM	Own 503	Ros	B04IMV	729	Pa	TD	106	72	34	48x3	56x3	N
103	648	4.4	415	60. 0	115–1800	H	G	C	7–3¼	17¾	FP	Ha	Zen	M	DR	DR	P.Ro	Mo	MM	Own 503	Ros	B04IMV	729	Pa	TD	106	72	34	48x3	56x3	N
104	228	4.7	150	27. 3	50–2400	L	C	A	7–2½	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Cla F208	Ros	L4IH	222	p	TX	88	60	34½	40x2¼	52x3	N
105	282	4.7	176	33. 7	73–2700	L	G	A	7–2½	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000	Ros	L4IH	335	a	TX	108	60	31½	38x2¼	52x2½	½
106	298	4. 7	200	33. 7	80–2800	L	G	A	7–3	9⅞	CC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	335	a	FD	96	60	34½	39x2½	52x3	½
107	282	4.7	176	33. 7	73–2700	L	G	A	7–2½	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000	Ros	L4IH	335	a	TX	108	60	31½	38x2¼	52x2½	½
108	339	4. 4	212	38. 4	76–2400	L	C	C	7–2⅝	13¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	335	a	FD	110	72	31½	40x2½	53x3	½
109	282	4.7	176	33. 7	73–2700	L	G	A	7–2½	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000	Ros	L4IH	394	a	TX	108	60	31½	38x2¼	52x3	½
110	393	4.9	260	42. 1	103–2600	L	G	C	7–3	11½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	394	a	F

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS									FRAME	
									ENGINE		TRANSMISSION		REAR AXLE			GEAR RATIOS			
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	In High	In Low	Side Rail Dimensions	Type
1	La Fr. Republic	C-2	2-2½	1100	150	162	10000	3800	B6.00/20	DB6.00/20	Lyc SA	6-3¼ x4½	Wa T9	U 4	No	Tim 53200H	SF	H	5.67	35.9	5⅞x2x¼	C
2		D-2	2-2½	1485	162	175	11500	4600	B6.50/20	DB6.50/20	Lyc SB	6-3¾ x4½	Wa T9	U 4	No	Tim 54200H	SF	R	5.83	37.9	7x3x¼	C
3		E-2	2½-3	2005	162	190	13000	5000	P32x6	DP32x6	Lyc ASD	6-3¾ x4½	Fu Mlu-Bb	U 4	No	Tim 56200H	SF	R	7.4	47.0	7x3x¼	C
4		F-3	3-3½	2420	174	198	16000	5625	P34x7	DP34x7	Lyc ASD	6-3¾ x4½	Fu MGU14	U 4	No	Tim 58200H	SF	R	7.8	50.6	8x3x¼	C
5		H-4	3½-4½	3285	179	206	19500	7300	B9.75/20	DP9 75/20	Ley TS	6-3¾x5	Fu MRU	U 4	No	Tim 75720H	2F	R	8.15	54.0	8x3x¼	
6		M-3	4½-5½	4640	174	198	23000	8300	B10.50/20	DB10.50/20	Wau 6SRL	6-4⅜x5½	Fu VUOG	U 5	No	Tim 76725H	2F	R	8.85	62.5	9¼x3½x¼	C
7		35-4	6½-7½	6570	174	198	30000	9250	B10.50/24	DB10.50/24	Wau 6-125	6-4⅜x5½	Fu MHU	U 4	No	Tim 78720W	2F	R	8.90	58.2	9¼x3½x¼	
8	Lange	R	1½	2225	140	172	9300	4600	P32x6	P32x6	Her WXB	6-3¾ x4½	BL 31	U 3	No	Tim 54000H	BF	R	5.83	28.0	5x2½x¼	
9		L	2	3450	144	210	15000	5800	P32x6	DP32x6	Her WXC	6-4x4½	BL 35	U 4	No	Wis 6617	2F	R	7.00	37.5	6x2½x¼	
10		O	2½	3950	146	212	17000	5985	P34x7	DP34x7	Her YXB	6-4x4¾	BL 51	U 4	No	Wis 8817	2F	R	7.29	39.1	6x2½x¼	
11		H	3	5150	151	187	19000	6850	P36x8	DP36x8	Her YXC	6-4⅜x4¾	BL 55	U 4	No	Wis 1418	2F	R	9.12	48.7	7x2½x¼	
12		M	3	5200	140	222	21000	7450	P38 .7	DP38x7	Her YXC	6-4⅜x4¾	BL 60	A 7	No	Wis 1402	2F	R	10.1	95.7	7x2½x¼	
13		F16	4	5500	148	188	23000	8600	P40x8	DP40x8	Her YXC	6-4⅜x4¾	BL 60	A 7	No	Wis 1552B	2F	R	10.0	95.5	8x3x¼	
14		T	5	5775	148	188	26000	9200	P40x8	DP40x8	Her YXC2	6-4½x4¾	BL 60	A 7	No	Wis 1700	2F	R	10.0	96.0	8x3x¼	
15		VA	5	6200	194	242	26000	9950	P9.75/24	DP9.75/24	Her RXC	6-4⅜x5⅛	BL 714	U 4	A 2	Wis 1737KW	2F	R	8.05	Opt	7x2¼x¼	
16	Le Moon	150	1½	1150	140	152	8000	3300	B6.50/20	B6.50/20	Con 16C	6-3⅜x4⅝	BL 214	U 4	No	Tim 53200H	BF	H	5.14	31.8	6x3x¼	
17		200	1½-2	1350	160	178	11200	3600	B7.00/20	DB7.00/20	Con 16C	6-3⅜x4⅝	BL 214	U 4	No	Tim 53200H	BF	H	5.14	31.8	6x3x¼	
18		300	2-3	1575	163	190	12600	4200	B7.50/20	DB7.50/20	Con 16C	6-3⅜x4⅝	BL 214	U 4	No	Tim 54200H	BF	H	6.80	42.1	6½x3¾x¼	C
19		400	3-4	2175	163	190	15300	5000	B8.25/20	DB8.25/20	Wau 6MS	6-3¾x4¾	BL 314	U 4	No	Tim 56200H	BF	R	6.16	40.6	6½x3⅜x¼	C
20		500	4-5	2775	160	190	19500	6000	B9.00/20	DB9.00/20	Wau 6MK	6-4⅛x4¾	BL 314	U 4	No	Tim 58200H	BF	R	6.14	40.6	7x4x¼	
21		501	4-5	3150	160	190	19500	6500	B9.00/20	DB9.00/20	Wau 6SRL	6-4⅜x5⅛	Fu VUOG	U 5	No	Tim 58200H	BF	R	6.14	40.6	7x4x¼	
22		(9) 600	5-6	3450	169	199	21600	7200	B9.75/20	DB9..75/20	Wau 6SRL	6-4⅜x5⅛	Fu VUOG	U 5	No	Tim 65720H	WF	R	6.00	43.2	7x4x¼	
23	Maccar	100	1¼-2	1330	151	167	10000	4000	B6.50/20	DB6.50/20	Bud J214	6-3⅜x4	Wa T9	U 4	No	Tim 53000H	BF	N	6.2	39.6	7x2¾x¼	C
24		36A	1½-2½	2050	155	183	12000	4850	B7.00/20	DB7.00/20	Bud H298	6-3¾x4⅛	BL 314	U 4	No	Tim 54200H	BF	R	4.86	32	6 x3⅜x¼	
25		40A	2½-4	2400	155	183	15000	5350	B7.50/20	DB7.50/20	Bud H298	6-3¾x4½	BL 314	U 4	No	Tim 56200H	BF	R	6.16	38.7	7x3x¼	
26		180	3-5	3500	181	213	18000	7400	B9.00/20	DB9.00/20	Bud K393	6-4 x4¾	BL 554	U 4	No	Wis 8787L	2F	R	6.0	49	9x3x¼	
27		56	3-5	3350	153	194	18000	6200	B8.25/20	DB8.25/20	Bud DW6	6-4¼x5	BL 51	U 4	No	Wis 6787L	2F	R	7.00	37.4	8x3x¼	
28		60	3-5	3950	153	207	18000	6600	B9.00/20	DB9.00/20	Bud BA6	6-4⅛x5⅛	BL 514	U 4	No	Tim 75200H	2F	R	6.4	34.4	8x3x¼	
29		60A	4-6	4750	153	207	22000	7300	B9.75/20	DB9.75/20	Bud BA6	6-4⅛x5⅛	BL 554	U 4	No	Tim 65720H	WF	R	6.8	43.	8x3x¼	
30		66A	4-6	5500	184	235	22000	8200	B9.75/20	DB9.75/20	Her YXCP3	6-4⅝x4¾	BL 615	A 5	No	Tim 65720W	WF	R	6.8	44.5	12x3x¼	
31		220H	4-6	4500	181	213	22000	8750	B9.75/20	DB9.75/20	Wau 6SRK	6-4⅜x5⅛	BL 615	A 5	No	Tim 65720H	WF	R	6.6	47.9	9x3x¼	
32		220W	4-6	5000	181	213	22000	8750	B9.75/20	DB9.75/20	Wau 6SRK	6-4⅜x5⅛	BL 615	A 5	No	Tim 65720W	WF	R	6.6	47.9	9x3x¼	
33		86A	5-8	5950	184	235	30000	9500	B10.50/20	DB10.50/20	Her YXCP3	6-4⅜x4¾	BL 70	A 5	No	Tim 66720W	WF	R	7.6	49.8	12x3x¼	
34	Mack	BL	1-2	2500	138	148	9500	4050	B6.00/20	DB6.00/20	Own BL	6-3¼x5	Own BG	U 4	No	Tim52000B2	SF	H	5.66	27.9	7x3x	
35		BG	1½-3	3000	138	192	12000	4800	P32x6	DP32x6	Own BG	6-3⅜x5	Own BG	U 4	No	Own BG	SF	H	5.44	26.8	7x3x	
36		BF	2½-4	4200	156	198	16000	6600	B8.25/20	DB8.25/20	Own BG	6-3⅜x5	Own BG	U 4	No	Own AB	2F	H	7.01	33.9	7 x3x	
37		AB	3-5	4000	147	219	17500	6450	P34x7	DP34x7	Own AB	4-4¼x5	Own AB	U 4	No	Own AB	CD	R	7.72	37.4	8x2¼x¼	
38		AB	3-5	4200	147	219	17500	6700	P34x7	DP34x7	Own AB	4-4¼x5	Own AB	U 4	No	Own AB	2F	H	7.58	36.7	8x2¼x¼	
39		AB	3-5	4150	147	219	17500	6450	P34x7	DP34x7	Own BG	6-3⅜x5	Own AB	U 4	No	Own AB	CD	R	7.72	37.4	8x2¼x¼	
40		AB	3-5	4500	147	219	17500	6700	P34x7	DP34x7	Own BG	6-3⅜x5	Own AB	U 4	No	Own AB	2F	H	7.58	36.7	8x2¼x¼	
41		BM	3-5	4700	157	217	21500	7500	B9.00/20	DB9.00/20	Own BC	6-4x5½	Own BC	U 4	No	Own AB	2F	H	7.01	40.9	7 x3x	
42		BC	4-6	5250	154	226	23500	7850	P36x8	DP36x8	Own BC	6-4x5½	Own BC	U 4	No	Own BC	2F	H	7.58	44.2	8½x3x	
43		BC	4-6	5500	154	226	23500	8000	P36x8	DP36x8	Own BC	6-4x5½	Own BC	U 4	No	Own BC	CD	R	7.88	46.0	8½x3x	
44		BX	4-6	5750	160	214	24800	7900	B9.75/22	DB9.75/22	Own BX	6-4¼x5½	Own BX	U 4	No	Own BX	CD	R	7.88	55.2	9½x3x¼	
45		BX	4-6	5600	160	214	24700	8050	B9.75/22	DB9.75/22	Own BX	6-4¼x5½	Own BX	U 4	No	Own BX	2F	H	7.01	49.4	9½x3x¼	
46		BJ	5-8	6450	168	245	31500	9800	B10.50/22	DB10.50/22	Own BK	6-4½x5½	Own AL	A 4	No	Own AK	2F	H	6.92	36.4	11½x3½x¼	
47		BQ	5-8	6800	191	245	32600	10000	B10.50/22	DB10.50/22	Own BQ	6-4¾x5¾	Own BQ	A 4	No	Own AK	2F	H	6.52	41.9	10½x3x¼	
48		AK	5-8	5150	162	228	28500	9500	B10.50/24 °	DB10.50/24°	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	7.83	50.5	8½x2¾x¼	
49		AK	5-8	5250	162	228	28500	9400	B10.50/24 °	DB10.50/24°	Own AC	4-5x6	Own AK	A 4	No	Own AK	2F	H	6.92	55.3	8½x2¾x¼	
50		AK	5-8	6450	174	240	32500	10400	B10.50/22	DB10.50/22	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own AK	2F	H	6.92	44.3	8½x3x¼	
51		BX-S	7½	6250	207	225	26000	9200	B9.75/24	DB9.75/24	Own BX	6-4¼x5½	Own B	U 4	No	Own BX	2F	H	7.54	53.1	9½x3x¼	
52		AC Light	5-8	4950	168	240	28000	9200	B10.50/24 °	DB10.50/24°	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	8.46	54.4	8x3x	
53		AC Medium	6-9	5500	168	240	32000	9800	S36x6	DS40x6	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	7.75	49.8	8x3x	
54		AC Heavy	7-10	6000	168	240	37000	10150	S36x7	DS40x7	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	8.95	57.4	8x3x	
55		AC	6-9	6450	174	240	28500	11400	B10.50/24	DB10.50/24	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own AC	CD	R	8.4	53.9	8½x3x	
56		AP	7½-10	8500	191	191	36500	11700	S36x7	DS40x8	Own AP	6-5x6	Own AP	J 4	No	Own AP	CD	R	8.31	53.3	8x3x	
57	Mar.-Herr.	TL-27	2-2½	3785	120	135	12000	5500	B7 .50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL328	U4	No	Own Tim	SF	H	Opt.	Opt	6x2½x¼	
58	(All 4 Wh.Dr.)	TL-28	2½-3	4285	158	188	15250	7250	B8.25/20	DB8.25/20	Her WXC	6-4x4½	BL 328	U4	No	Own Wis	2F	H	Opt	Opt	6x2¾x¼	
59		TL-29	3-3½	4950	158	188	17200	7700	B8.25/22	DB8.25/22	Her WXC	6-4x4½	Fu MGU	U4	A 2	Own Wis	2F	H	Opt	Opt	6x2¾x¼	
60		TL-30	3½-4	5485	158	188	19370	8370	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	Fu MGU	U4	A 2	Own Wis	2F	H	Opt	Opt	6x2¾x¼	
61		TH-300	3½-4	6285	163	193	20300	9300	B9.75/20	DB9.75/20	Her YXC	6-4¼x4¾	Fu VUOG	U5	A 2	Own Wis	2F	H	Opt	Opt	8½x3x	
62		TH-310	4-5	6785	163	193	22620	10120	B9.75/20	DB9.75/20	Her YXC3	6-4¼x4¾	Fu VUOG	U5	A 2	Own Wis	2F	H	Opt	Opt	8½x3x	
63		TH-310A	5-6	6785	163	193	25120	10120	B9.75/22	DB9.75/22	Her RXC	6-4⅜x5¼	Fu VUOG	U5	A 2	Own Wis	2F	H	Opt	Opt	8½x3x	
64		TH-320	5-7	10500	198	228	31200	14200	B10.50/22	DB10.50/24	Her HXB	6-5x6	BL 724	U4	A 3	Own Wis	2F	H	Opt	Opt	10¼x3x	
65		TH-330	7½	12500	198	228	33920	14920	B11.25/24	DB11.25/24	Her HXD	6-5½x6	BL 734	U4	A 3	Own Wis	2F	H	Opt	Opt	10½x8x	
66	Moreland	RR-10	1½	1195	159	Op	10000	4195	B6.50/20	DB6.50/20	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim 53200H	SF	R	5.66	35.0	7 x2⅝x¼	
67		RR-12	2	1400	159	Op	12000	4585	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim 54300H	SF	R	5.83	36.1	7 x2⅝x¼	
68		B13, 15	2½-3½	2850	184	Op	15000	5815	B8.25/20	DB8.25/20	Her WXC	6-4x4½	BL 334	U 4	No	Tim 56200H	SF	R	6.17	40.7	9 x3½x¼	
69		B16, 18	4-4½	3025	184	Op	18000	6195	B9.00/20	DB9.00/20	Her WXC	6-4x4½	BL 334	U 4	No	Tim 58200H	SF	R	6.13	40.5	9 x3½x¼	
70		E16, 18	4-4½	3300	184	Op	18000	6460	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	BL 334	U 4	No	Tim 58200H	SF	R	6.13	32.9	9 x3½x¼	
71		E19, 21	5-5½	3800	184	Op	21000	7155	B9.75/20	DB9.75/20	Her WXC3	6-4¼x4½	BL 524	U 4	No	Tim 65720H	WF	R	7.25	38.	9 x3½x¼	
72		H-24	5½-6½	5300	196	Op	24000	8700	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL 5212	A 12	No	Tim66720TW	WF	R	8.20	59.7	9¼x2¼x¼	
73	Netco	A	1½-2	2800	146	168	8400	4000	B6.00/20	DB6.00/20	Wau 6ZK	6-3⅜x4⅛	BL 214	U 4	No	Tim 52000H	SF	H	4.85	Opt	6x2½x¼	
74		B	2½	3000	155	183	12600	5000	B7.50/20	DB7.50/20	Wau 6TL	6-3⅜x4¾	BL 314	U 4	No	Tim 54000H	BF	H	5.83	Opt	6x3¼x¼	
75		C	3	3300	148	200	15300	6000	B8.25/20	DB8.25/20	Wau 6MK	6-4⅛x4¾	BL 314	U 5	No	Tim 58000H	BF	H	6.83	Opt	7x3x¼	
76		E	3½	4500	140	200	23400	7500	B9.75/20	DB9.75/20	Wau 6SRL	6-4⅜x5⅛	BL 55	U 4	No	Tim 65704	WF	R	7.25	Opt	9x3x¼	
77		J	5	5300	140	200	28200	9500	B10.50/20	DB10.50/20	Wau 6SRK	6-4⅜x5⅛	BL 615	U 5	No	Tim 68700	WF	R	8.0	9 .25	9x3x¼	
78		K	5½	6500	180	220	37500	11000	B12.00/20	DB12.00/20	Lyc AEC	8-3¾x4¾	BL 615	U 5	No	Wis 1627KH	2F	R	Opt	Opt	9x3x¼	
79	Oshkosh	JSW	1½-2	2650	123	Op	10660	4880	B7.00/20	DB7.00/20	Her WXC	6-4x4½	BL 224	U 4	No	Own JSB	SF	H	6.19	40.1	6x3½x¼	Tf
80		JSB	1½-2	2490	149	Op	10750	4760	B7.00/20	DB7.00/20	Her JXB	6-3⅝x4¼	BL 224	U 4	No	Own JSB	SF	H	6.19	40.1	6x3½x¼	
81		LB	2-2½	3750	146	165	13900	6700	B9.00/20	B9.00/20	Her JXC	6-3¾x4¼	BL 51-4	U 4	No	Own LB	2F	H	7.3	39. 0	7x3x¼	
82		LC	2½-3	4000	146	165	15150	6950	B9.00/20	B9.00/20	Her WXC	6-4x4½	BL 55-4	U 4	No	Own LC	2F	H	7.3	53.1	7x3x¼	
83		H2A	3½	4675	146	165	16550	7550	B9.75/22	B9.75/22	Her WXC3	6-4¼x4½	BL 55-7	A 7	No	Own H2A	2F	H	8.94	84. 9	7x3x½	
84		H2B	3½-4	4890	146	165	18500	8400	B10.50/22	B10.50/22	Her YXC	6-4½x4¾	BL 615	U 5	No	Own H2B	2F	H	8.94	73.4	7x3x¼	
85		H2C	4	5165	146	165	19700	8700	B11.25/20	B11.25/20	Her RXB	6-4½x5¼	BL 615	U 5	No	Own H2C	2F	H	9.6	78. 9	7x3x½	
86		Y2D	4-5	5490	146	165	21000	9200	B11.25/20	B11.25/20	Her RXB	6-4½x5¼	BL 70-7	A 7	No	Own Y2D	2F	H	9.6	91. 2	7x3x½	
87		FHX	5	5145	146	165	21850	9850	B12.75/20	B12.75/20	Her RXC	6-4½x5¼	BL 70-7	A 7	No	Own FHX	2F	H	9.6	90. 2	8x3x½	
88		F2A	5-7	6775	146	165	26650	10650	B12.75/20	B12.75/20	Her RXC	6-4½x5¼	BL 70-7	A 7	No	Own F2A	2F	H	9.1	85.5	8x3x½	
89	Pierce-Arrow	13S385	2-2½	2500	160	200	15000	5750	B8.25/20	DB8.25/20	Own E	8-3½x5	Co RU4SL	U 4	No	Tim 56200	SF	R	5.28	33.5	7⅝x3½x¼	
90		15T298	3-3½	1950	150	200	15000	5725	B8.25/20	DB8.25/20	Her WXB	6-3¾x4¼	Cl B102	U 4	Op	Tim 56200	SF	R	6.16	64.0	7⅝x3½x¼	
91		17T361	3-4	2300	180	200	17000	5800	B8.25/20	DB8.25/20	Her WXC2	6-4¼x4½	Co RU4SL	U 4	Op	Tim 58200	SF	R	5.57	34. 4	7⅝x3½x¼	
92		18W361	3½-4½	3000	150	200	18000	6660	B9.00/20	DB9.00/20	Her WXC2 Spe	6-4¼x4½	Co RU4SL	U 4	Op	Tim 65720	WF	R	6.8	41. 9	8¼x2½x¼	
93		19R428	3½-4½	3600	150	200	19000	7850	B9.00/20	DB9.00/20	Her YXC	6-4¾x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	5.4	28. 6	8¼x2½x¼	
94		19R479	3½-4½	3600	150	200	20000	7900	B9.00/20	DB9.00/20	Her YXC3	6-4⅝x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	5.04	28. 6	8¼x2½x¼	
95		21W361	4½-5½	3100	150	190	21000	6800	B9.75/20	DB9.75/20	Her WXC2 Spe	6-4¼x4½	Co RU4SL	U 4	Op	Tim 65720	WF	R	9.25	48. 3	8½x2½x¼	
96		21R428	4½-5½	3700	150	190	21000	7970	B9.75/20	DB9.75/20	Her YXC	6-4⅝x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	6.8	36.	8½x2½x¼	
97		21X428	4½-5½	3900	200	240	21000	8120	B9.75/20	DB9.75/20	Her YXC	6-4⅝x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	6.8	36.	9¼x2½x¼	
98		22R501	4½-5½	3750	150	200	22000	7970	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Tim 65720	WF	R	6.8	36. 0	8¼x2½x¼	
99		22X479	4½-5½	3900	200	240	24000	8120	B9.75/20	DB9.75/20	Her YXC2	6-4⅝x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	6.8	36.	9¼x2½x¼	
100		22X501	4½-5½	4000	200	240	25000	8120	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Tim 65720	WF	R	6.8	36.	9¼x2½x¼	
101		24X501	5-6	4200	150	200	24000	9250	B10.50/20	DB10.50/20	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Tim 66720	WF	R	7.6	40. 2	9¼x2½x¼	
102		24M611	5-6	5000	150	200	24000	10200	B10.50/20	DB10.50/20	Her GXA	6-4¾x5¾	Own618290	A 4	Op	Tim 66720	WF	R	7.6	39. 9	9¼x2½x¼	
103		(T) 27T361T	.....	2450	150	170	27000	5725	B9.00/20	DB9.00/20	Her WXC2	6-4¼x4½	Co RU4SL	U 4	Op	Tim 58200	SF	R	7.8	48. 2	7⅝x8½x¼	
104		(T) 27R428T	.....	3650	150	170	27000	7000	B9.00/20	DB9.00/20	Her YXC	6-4⅝x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	7.25	38. 4	8¼x2½x¼	
105		28X501	6-7	4600	160	200	28000	10675	B10.50/24	DB10.50/24	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Own 616743	WF	A	10	53	9¼x2½x¼	
106		28M611	6-7	5400	160	200	28000	11600	B10.50/24	DB10.50/24	Her GXA	6-4¾x5¾	Own618290	A 4	Op	Own 616743	WF	A	10	52. 5	9¼x2½x¼	
107		28Y479	6-7	4400	160	200	28000	10675	B10.50/24	DB10.50/24	Her YXC3	6-4⅝x4¾	Co TNU	U 4	Op	Own 616743	WF	A	10	53.	9¼x2½x¼	
108		28L501	6-7	4900	200	240	28000	10975	B10.50/24	DB10.50/24	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Own 616743	WF	A	10.	53.	10x3x¼	
109		28K611	6-7	5500	200	240	28000	11900	B10.50/24	DB10.50/24	Her GXA	6-4¾x5¾	Own618290	A 4	Op	Own 616743	WF	A	10.	53.	10x3x¼	
110		34K611	7½-10	5300	170	200	34000	11675	B10.50/24	DS40x8	Her GXA	6-4¾x5¾	Own618290	A 4	Op	Own 616743	WF	A	8	42	10x3x¼	
111		(T) 34T361T	.....	2650	150	170	34000	5775	B9.00/20	DB9.00/20	Her WXC2	6-4¼x4½	BL 325	U 5	Op	Tim 58200	SF	R	7.8	48. 2	7⅝x8½x¼	
112		(T) 35R501T	.....	3800	150	170	35000	7050	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Tim 65720	2F	R	8.15	43. 1	8¼x2½x¼	
113		(T) 45X501T	.....	4400	200	240	45000	9300	B9.75/20	DB10.50/20	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Tim 66720	2F	R	9.98	52. 8	9¼x2½x¼	
114		(T) 75M779T	.....	6400	190	190	75000	12750	B10.50/24	DB10.50/24	Her HXA	6-5¼x6	Own618290	A 4	A	Own 616743	2F	A	9.9	51. 9	9½x2½x¼	
115	Relay	15A	1	1400	131	162	8000	3800	P30x5	P30x5	Con 17E	6-3⅜x4	WG T9	U 4	No	Own 20B	2R	H	6.00	38. 4	6x2½x	
116		S11	2	2030	142	162	11000	4700	P32x6	DP32x6	Bud HS6	6-3⅜x4½	BL 20	U 4	No	Own 20B	2R	R	5.14	25.5	6x2½x	
117		40CC	2½	3275	168	192	14000	5950	P36x6	DP36x6	Bud DW6	6-3¾x5	BL MGU14	U 4	No	Own 30	2R	R	6.45	41. 8	6x3x¼	
118		50DC	3	4130	161	169	20000	7200	P36x6	DP40x8	Bud DW6	6-3¾x5	BL 51-5	U 5	No	Own 60	2R	R	7.88	58.5	7x3½x¼	
119		60DC	3½	4745	175	192	25000	7800	P38x7	DP40x8	Bud BA6	6-4⅛x5⅛	Fu VU-16	U 5	No	Own 60	2R	R	7.88	58.5	7x3½x¼	
120		100AC	5	6615	230	180	26000	10000	B9.00/24	DB9.00/24	Con 21R	6-4¾x4¾	Fu VU-16	U 5	No	Own 65	2R	R	7.88	58.5	8¼x3½x¼	
121		230	5	6750	196	210	30000	11600	B10.50/24	DB10.50/24	Her GXA	6-4¾x5¾	BL 7312	U 4	3	Own 232	2R	R	8.7	89	11½x3x¼	
122		100B	7½	6900	220	180	32000	11200	B9.75/24	DB9.75/24	Bud GF6	6-4¾x6	BL 1714	U 4	No	Own 85AH	2R	R	7.04	49.7	8¼x3½x¼	
123		240	7½	7900	174	240	40000	12900	B12.00/24	DB12.00/24	Her HXC	6-5¼x6	BL 7312	U 4	3	Own 245	2R	R	9.14	93	12¼x3¼x¼	

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	224	4.7	145	25.3	61–2800	L	G	C	4-2⅜	8⅞	PC	No	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 30000H	Ros	L41H	287	Da	TX	110¾	67½	31¼	38x2	52½x2½	½
2	242	5.0	160	27.3	65–2800	L	G	C	4-2⅜	8⅞	PC	No	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ha	L41H	271	Da	TX	143¾	79½	32	38x2	52½x2½	½
3	299	4.9	166	33.5	82–2600	L	G	C	4-2¾	10	PC	Ha	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L41HV	327	Da	TX	120	78¾	32	38x2	57½x2½	½
4	299	4.9	195	33.5	82–2600	L	G	C	4-2¾	10	PC	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33020H	Ros	L41HV	367	Da	FD	140¼	93	32	39x2½	60x3	½
5	354	4.3	228	36.2	86–2300	L	G	C	4-2¾	10	FP	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33000H	Ros	L41HV	458	Da	FD	144	75	32	39x2½	60x3	½
6	462	4.6	310	46.	97–2000	L	G	C	7-3	13⅞	PC	Wa	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 35000H	Ros	L41HV	468	Da	FD	168	88	32⅛	44x3	60x3½	½
7	462	4.6	324	46.	125–2400	L	G	C	7-3	13⅞	PC	Wa	Zen	M	AL	AL	D.Fu	Ow	Spi	Tim 27450W	Ha	W84IA	690	Da	FD	168	81¼	34	44x3	60x3½	½
8	298	4.7	190	33.7	67–2400	L	G	C	7-2⅝	13½	PC	No	Zen	M	AL	AL	D.BL	Mo	Spi	Tim 12703H	Ros	L41H	302	o	CD	84	56	33	38x2¼	50x2½	N
9	339	4.7	223	38.4	74–2400	L	G	C	7-2⅝	13½	PC	Pe	Str	V	AL	AL	D.BL	Mo	Spi	Shu 5572	Ros	L41HV	678	G	CD	104	62	33	40x2½	56x3	½
10	359	4.4	228	38.4	80–2200	L	G	C	7-3	15	PC	Pe	Str	V	AL	AL	D.BL	Mo	Spi	Shu 5572	Ros	L41HV	678	G	CD	106	65	33	40x2½	56x3	½
11	428	4.4	280	45.9	94–2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 15300	Ros	W2IM	615	G	CD	112	75	33	42x2½	56x3	½
12	428	4.4	280	45.9	94–2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 16310	Ros	W2IM	802	G	TD	95	73	33	42x2½	56x3	½
13	428	4.4	280	45.9	94–2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 16300	Ros	W2IM	802	G	TD	154½	99½	37	44x3	56x4	½
14	453	4.8	300	48.6	99–2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 16300	Ros	W2IM	802	G	TD	154½	99½	37	44x3	56x4	½
15	529	4.5	350	51.3	112–2200	L	G	A	7-3	12½	PC	Ha	Str	M	LN	LN	P.BL	Mo	Spi	Tim 26450W	Ros	W84IA	576	G	TD	Opt	Opt	33	44x3	56x3	½
16	248	4.1	150	27.3	65–2800	L	C	C	7-2⅜	10⅝	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L41H	275	C	TX	96	58	34	37½x2¼	49¼x2½	N
17	248	4.4	150	27.3	65–2800	L	C	C	7-2⅜	10⅝	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L41H	275	C	TX	128	81	34	37½x2¼	50x2½	½
18	248	4.4	150	27.3	65–2800	L	C	C	7-2⅜	10⅝	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 31000H	Ros	L41H	293	C	TX	128	81	34	37½x2¼	50x2½	½
19	315	4.6	200	33.7	72–2500	L	G	C	7-2⅝	12⅛	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 33000H	Ros	L41H	345	C	TX	128	81	34	37½x2¼	50½x2½	½
20	381	4.4	242	40.8	85–2500	L	G	C	7-2⅝	12⅛	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 35000H	Ros	L41HV	385	C	CD	128	81	34	39x2½	53x3	½
21	462	4.5	300	45.9	98–2000	L	G	A	7-3	13⅞	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L41HV	385	C	CD	128	81	34	39x2½	53x3	½
22	462	4.5	300	45.9	98–2000	L	G	A	7-3	13⅞	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L41HV	485	C	RI	128	81	34	39x2½	53x3	½
23	214	4.5	135	27.3	60–2500	L	G	C	7-2½	8¾	FP	Ha	Str	M	DR	DR	P.BB	Pe	Spi	Tim 30000H	Ros	L41H	313	a	TD	118	80	32	40x2½	54x2½	½
24	298	4.7	188	33.7	83–2800	L	G	C	7-3	9⅞	FP	Ha	Str	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L41H	293	a	TD	114	72½	32	42x2½	54x2½	½
25	298	4.7	188	33.7	83–2800	L	G	C	7-3	9⅞	FP	Ha	Str	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L41HV	343	a	TD	114	72½	32	42x2½	54x2½	½
26	393	4.5	260	42.1	103–2400	L	G	C	7-3	11½	FP	Ha	Str	M	DR	DR	P.BL	Ow	Spi	Tim 31000H	Ros	L41H	436	a	TD	143½	91½	32	42x3	58½x3	½
27	331	4.5	200	33.7	73–2100	L	G	C	4-2½	9	FP	Bu	Str	V	DR	DR	D.BL	Pe	Spi	Tim 35020H	Ros	L41HV	412	a	FD	107½	70	32	42x2½	54x3	½
28	411	4.5	272	40.8	103–2100	L	G	C	4-2½	9⅞	FP	Ha	Str	M	DR	DR	D.BL	Pe	Spi	Tim 35020H	Ros	L41HV	412	a	TD	104½	68	32	42x2½	54x3	½
29	411	4.5	272	40.8	103–2100	L	G	C	4-2½	9⅞	FP	Ha	Str	M	DR	DR	D.BL	Pe	Spi	Tim 35020H	Ros	L41HV	527	a	TD	104½	68	32	42x2½	54x3	½
30	479	4.5	318	51.2	10 –2000	L	G	C	7-3	14	PC	Ha	Zen	M	DR	DR	D.BL	Pe	Spi	Tim26450TW	Ros	W84IA	618	a	TD	144	95	33	42x3	58x3	½
31	517	4.5	335	51.3	106–2000	L	G	A	7-3	14	CC	Ha	Str	M	DR	DR	P.BL	Ow	Spi	Tim35000H	Ros	L41H	600	a	TD	143½	91½	32	42x3	58½x3	½
32	517	4.5	335	51.3	106–2000	L	G	A	7-3	14	CC	Ha	Str	M	DR	DR	P.BL	Ow	Spi	Tim35000TW	Ros	W84IA	600	a	TD	143½	91½	32	42x3	58½x3	½
33	479	4.5	318	51.2	102–2000	L	G	C	7-3	14	PC	Ha	Zen	M	DR	DR	D.BL	Pe	Spi	Tim26450TW	Ros	W84IA	623	a	TD	144	95	33	42x3	58x3	½
34	248	5.1	145	25.4	61–2600	L	G	C	7-2⅝	11⅛	FP	Ha	Str	M	NE	NE	D.Ow	Ow	Spi	Own BL	Ge	L41H	302	P	FX	109	64⅛	33⅛	40⅞x2½	52¾x2½	N
35	309	4.7	183	31.5	75–2500	L	G	C	7-2⅝	11⅛	FP	Ha	Str	M	NE	NE	D.Ow	Ow	Spi	Own BG	Own	O41MV	427	a	FX	96	54½	33⅛	42x2½	54x3	½
36	309	4.7	183	31.5	75–2500	L	G	C	7-2⅝	11⅛	FP	Ha	Str	M	NE	NE	P.Ow	Ow	Spi	Own BG	Ros	O41MV	427	a	FD	132	84½	33⅛	44x2½	54x3	½
37	283	4.4	176	28.9	63–2100	L	G	C	3-3	8⅛	PS	Ow	Str	G	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	48x3	N
38	283	4.4	176	28.9	63–2100	L	G	C	3-3	8⅛	PS	Ow	Str	G	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	56½x3½	N
39	309	4.7	183	31.5	75–2500	L	G	C	7-2⅝	11⅛	FP	Ha	Str	M	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	48x3	N
40	309	4.7	183	31.5	75–2500	L	G	C	7-2⅝	11⅛	FP	Ha	Str	M	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	56½x3½	N
41	414	4.5	261	38.4	94–2400	L	G	C	7-3	13⅛	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BM	Ros	O41MV	427	a	FX	156	108½	33¼	44x2½	54x3½	N
42	414	4.5	261	38.4	94–2400	L	G	C	7-3	13⅛	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BC	Own	O41MV	610	a	FX	120	73	33¼	43¾x3	56½x3½	N
43	414	4.5	261	38.4	94–2400	L	G	C	7-3	13⅛	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BC	Ros	O41MV	590	a	JX	120	73	33⅜	43¾x3	54x3	N
44	468	4.7	292	43.4	104–2300	L	G	C	7-3	13⅛	FP	Ha	Str	M	NE	NE	P.Ow	Ow	Spi	Own BC	Ros	O41MV	619	a	JX	144	91	33⅜	53⅛x3	54x3	N
45	468	4.7	292	43.4	104–2300	L	G	C	7-3	13⅛	FP	Ha	Str	M	NE	NE	P.Ow	Ow	Spi	Own BC	Ros	O41MV	619	a	FX	144	91	33⅛	53⅛x3	56½x3½	N
46	525	4.8	350	48.6	125–2300	L	G	C	4-3½	11⅛	PS	Ow	Str	M	RB	LN	P.Ow	Ow	Cle	Own AK	Ros	O41MV	618	a	FD	120	79	33¼	50x3½	59⅛x4	¼
47	611	5.0	398	54.2	128–2200	L	G	C	4-3½	11⅛	PS	Ow	Str	M	RB	NE	P.Ow	Ow	Cle	Own BQ	Ros	O41MV	618	a	FX	150	102	33¼	50x3½	58⅛x3½	½
48	471	3.9	320	40.0	75–1800	L	G	C	3-3	10⅛	PS	Ow	Str	G	RB	NS	P.Ow	Ow	Spi	Own AK	Own	O41MV	492	a	JX	132	93⅛	37½	48x3½	52x4	½
49	471	3.9	320	40.0	75–1800	L	G	C	3-3	10⅛	PS	Ow	Str	G	RB	NS	P.Ow	Ow	Spi	Own AK	Own	O41MV	492	a	FX	132	93⅛	37½	48x3½	56x4	½
50	611	5.0	398	54.2	128–2200	L	G	C	4-3½	11⅛	PS	Ow	Str	M	RB	LN	P.Ow	Ow	Spi	Own AK	Ros	O41MV	561	a	FD	132	93	37⅜	47⅛x3½	58½x4	½
51	468	4.7	292	43.4	104–2300	L	G	C	7-3	13⅛	FP	Ha	Str	M	NE	NE	P.Ow	Ow	Spi	Own BC	Ros	O41MV	619	a	FX	212	138	33⅛	53⅛x3	56½x3½	N
52	471	3.9	320	40.0	75–1800	L	G	C	3-3	10⅛	PS	Ow	Str	G	RB	NS	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	C	2I	156	104	37½	46x3½	52x4	½
53	471	3.9	320	40.0	75–1800	L	G	C	3-3	10⅛	PS	Ow	Str	G	RB	NS	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	C	2I	156	104	37½	46x3½	52x4	½
54	471	3.9	320	40.0	75–1800	L	G	C	3-3	10⅛	PS	Ow	Str	G	RB	NS	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	C	2I	156	104	37½	46x3½	52x4	½
55	611	5.0	398	54.2	128–2200	L	G	C	4-3½	11⅛	PS	Ow	Str	M	RB	LN	P.Ow	Ow	Spi	Own AK	Ros	O41MV	755	C	JX	156	105	37½	48x3½	52x4	½
56	706	4.8	427	60.0	138–1900	L	G	S	4-3½	11⅛	PS	Ow	Str	G	RB	LN	P.Ow	Ow	Spi	Own AC	Ros	O2IMV	284	C	JX	180	108⅞	37½	46⅛x3½	52x4	½
57	282	5.3	190	33.7	73–2800	L	G	A	7-2½	10⅛	PC	No	Zen	M	DR	DR	P.BL	Yo	Spi	Own 1A	Ros	T2/41H	238	P	FD	Opt	48	34	40x2½	50x2½	O
58	339	4.7	215	38.4	76–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.BL	Yo	Blo	Own 1	Ros	W2/41H	350	P	FD	Opt	67	34	40x2½	50x2½	O
59	339	4.7	215	38.4	76–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own 1	Ros	W2/41H	350	a	FD	Opt	67	34	40x3	50x3	O
60	383	4.7	265	43.3	92–2400	L	G	A	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own 2A	Ros	W2/41H	812	a	FD	Opt	67	34	40x3	50x3	O
61	428	4.4	280	45.9	94–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own 2	Ros	W2/41A	812	a	FD	Opt	72	34	44x3	52x3½	O
62	479	4.4	320	51.3	103–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own 2	Ros	W2/41A	918	a	FD	Opt	72	34	44x3	52x3½	O
63	529	4.9	350	51.3	115–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own 3	Ros	W2/41A	918	a	FD	Opt	72	34	44x3	52x3½	O
64	707	4.5	455	60	150–2000	L	G	A	7-3½	17	PC	Ha	Zen	M	DR	DR	dp.BL	Yo	Blo	Own 3A	Ros	W82/41A	974	a	2FD	Opt	102	34	52x4	54x4	O
65	855	4.5	550	72.8	180–2000	L	G	A	7-3½	17	PC	Ha	Zen	M	DR	DR	dp.BL	Yo	Blo	Own 4	Ros	Ws2/41A	974	a	2FD	Opt	102	34	52x4	54x4	O
66	282	5.0	176	33.8	73–2800	L	C	C	7-2½	10⅛	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 30000H	Ros	L41H	254	a	TD	132	78	34	40x2½	54x3	½
67	282	5.0	176	33.8	73–2800	L	C	C	7-2½	10⅛	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 31000H	Ros	L41H	364	a	TD	132	78	34	40x2½	54x3	½
68	339	4.7	212	38.4	76–2400	L	G	C	7-2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L41H	374	a	TD	156	101	34	40x2½	54x3	½
69	339	4.7	212	38.4	76–2400	L	G	C	7-2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L41H	405	a	TD	156	101	34	40x2½	54x3	½
70	383	4.4	262	43.3	92–2400	L	G	A	7-2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L41H	405	a	FD	156	99⅝	34	41½x2½	54x3	½
71	383	4.4	262	43.3	92–2400	L	G	A	7-2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 35120H	Ros	L41H	494	a	FD	156	99⅝	34	40x2½	54x3½	½
72	501	4.9	330	48.6	110–2200	L	G	A	7-3	12½	PC	Mo	Zen	M	AL	AL	P.BL	Lo	Cle	Tim26450TW	Ros	Ws4IA	620	a	FD	168	112¼	34	42x3	56x3½	½
73	222	4.9	142	27.3	68–2600	L	G	A	4-2⅝	7⅞	FP	Ha	Zen	M	AL	AL	P.BL	Mo	Pet	Tim 11703H	Ros	L41H	229	P	ID	108	72	34	40x2½	50x3	N
74	255	5.1	170	27.3	68–2600	L	G	A	4-2⅝	7⅞	FP	Ha	Zen	M	AL	AL	P.BL	Mo	Pet	Tim 12703H	Ros	L41H	240	G	ID	120	84	34	40x2½	50x3	½
75	381	4.6	240	45.9	100–2400	L	G	A	7-3	13⅞	FP	Wa	Zen	M	AL	AL	P.BL	Mo	Pet	Tim 14703H	Ros	L41H	400	G	ID	132	96	34	40x2½	50x3	½
76	462	4.6	300	45.9	100–2400	L	G	A	7-3	13⅞	FP	Wa	Zen	M	AL	AL	D.BL	Mo	Pet	Tim 15733	Ros	L41H	520	G	ID	132	96	34	40x3	50x3	½
77	517	4.5	335	48.6	110–2400	L	G	A	7-3	13⅞	FP	Wa	Zen	M	AL	AL	D.BL	Mo	Pet	Tim 17300	Ros	L41H	615	G	ID	132	96	34	40x3	50x4	½
78	420	5.2	310	45.5	140–2800	L	G	C	5-2⅝	12	FP	Ha	Zen	M	AL	AL	D.BL	Mo	Pet	Tim 26450H	Ros	L41H	690	G	ID	180	120	33	44x3	56x4	½
79	339	4.7	225	38.4	81–2200	L	G	C	7-2½	13¼	PC	No	Zen	M	AL	AL	P.BL	Ow	Spi	Own JSB	Ha	B41MV	304	G	TX	77½	51	34	42x2½	44x2½	½
80	263	4.4	164	31.5	68–2800	L	G	C	7-2½	10⅛	PC	No	Zen	M	AL	AL	P.BL	Ow	Spi	Own JSB	Ha	B41MV	304	G	TX	103½	77	34	42x2½	44x2½	½
81	282	5.3	176	33.7	72–2500	L	G	C	7-2½	10⅛	PC	Ha	Str	M	RB	LN	D.BL	Mo	Blo	Own LB	Ros	O4XM	142	C	2I	112¼	82⅞	34	44x2½	50x3	N
82	339	4.7	210	38.4	70–2000	L	G	C	7-2⅝	13¼	PC	Ha	Str	M	RB	LN	D.BL	Mo	Blo	Own LC	Ros	O4XM	142	G	2I	112¼	82⅞	34	44x2½	50x3	½
83	383	4.7	265	43.3	86–2000	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	RB	RB	D.BL	Mo	Blo	Own H2A	Ros	O4XM	142	G	2I	112¼	82⅞	34	44x2½	50x3	½
84	428	4.4	278	45.9	90–2000	L	G	C	7-3	15	PC	Ha	Zen	M	RB	LN	D.BL	Mo	Blo	Own H2B	Ros	O4XM	142	G	2I	112¼	82⅞	34	44x2½	50x3	½
85	501	4.9	330	48.6	106–2000	L	G	C	7-3	15	PC	Ha	Zen	M	NE	LN	D.BL	Mo	Blo	Own H2C	Ros	O4XM	142	G	2I	112¼	82⅞	34	44x2½	50x3	½
86	501	4.9	330	48.6	106–2000	L	G	A	7-3	15	PC	Ha	Zen	M	NE	LN	D.BL	Mo	Blo	Own Y2D	Ros	O4XM	170	G	2I	112¼	82⅞	34	44x2½	50x3	½
87	529	4.9	350	51.2	112–2000	L	G	A	7-3	15	PC	Ha	Zen	M	RB	LN	D.BL	Mo	Blo	Own FHX	Ros	O4XM	170	G	2I	112¼	82⅞	34	44x2½	50x3	½
88	529	4.9	350	51.2	112–2000	L	G	A	7-3	15	PC	Ha	Zen	M	RB	LN	D.BL	Mo	Blo	Own F2A	Ros	B41MV	666	G	TX	112¼	82⅞	34	44x2½	50x3	½
89	285	5.0	274	39.2	125–2800	L	G	A	4-2⅝	14½	CC	Ha	Str	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	CD	116¼	62½	34	38x2½	56x3	½
90	295	4.7	190	33.7	76–2600	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	TD	113½	59½	34	38x2½	56x3	½
91	361	4.7	229	40.3	77–2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	CD	143½	89½	34	38x2½	56x3	½
92	361	4.7	229	40.3	77–2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	119½	65	34	41x2½	56x3	½
93	428	4.6	280	46.	94–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	118¼	63¼	34	41x2½	56x3	½
94	479	4.7	318	51.3	104–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	118¼	63¾	34	41x2½	56x3	½
95	361	4.7	229	40.3	77–2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	119½	65	34	41x2½	56x3	½
96	428	4.6	280	46.	94–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	118¼	63¼	34	41x2½	56x3	½
97	428	4.6	280	46.	94–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	T4IA	618	D	CD	168¼	133¼	34	41x2½	56x3	½
98	501	4.6	330	48.6	110–2200	L	G	A	7-3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	118¼	63¼	34	41x2½	56x3	½
99	479	4.6	280	46.	94–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	T4IA	618	D	CD	168¼	133¼	34	41x2½	56x3	½
100	501	4.6	330	48.6	110–2200	L	G	A	7-3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	T4IA	618	D	CD	168¼	133¼	34	41x2½	56x3	½
101	501	4.6	330	48.6	110–2200	L	G	A	7-3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	T4IA	618	D	CD	132¾	78¼	34	41x3	56x3½	½
102	611	4.5	410	54.1	130–2000	L	G	A	7-3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 26050	Ros	T4IA	618	D	TX	117	62½	34	41x3	56x3½	½
103	361	4.7	229	40.3	77–2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	CD	93⅞	59⅜	34	38x2½	56x3	½
104	428	4.6	280	46.	94–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	98¼	63¼	34	41x2½	56x3	½
105	501	4.6	330	48.6	110–2200	L	G	A	7-3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	TO4IA	720	D	CD	132¾	78¼	34	41x3	56x4	½
106	611	4.5	410	54.1	130–2000	L	G	A	7-3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 26050	Ros	TO4IA	720	D	TX	127	72½	34	41x3	56x4	½
107	479	4.6	318	51.3	104–2200	L	G	A	7-3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	TO4IA	720	D	CD	132¾	78¼	34	41x3	56x4	½
108	501	4.6	330	48.6	110–2200	L	G	A	7-3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	T4IA	618	D	CD	172⅝	118⅝	34	41x3	56x4	½
109	611	4.5	410	54.1	130–2000	L	G	A	7-3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 26050	Ros	TO4IA	720	D	TX	167	112½	34	41x3	56x4	½
110	611	4.5	410	54.1	130–2000	L	G	A	7-3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 27050	Ros	TO4IA	720	D	TX	137¾	82½	34	41x3	56x4	½
111	361	4.7	229	40.3	77–2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706

Line Number	MAKE AND MODEL	Wheels Driven—6-Wheelers	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS									FRAME	
										ENGINE		TRANSMISSION			REAR AXLE			GEAR RATIOS		
			Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	In High	In Low	Side Rail Dimensions	Type
1	Reo.....1A, (1C†)	1½	625	136	160	8000	2930	B6.00/20	P32x6	Own	4–3¼ x4½	Own	U 4	No	Own	SF	H	5.6	36.9	7x2¾ x ⅜	C
2	.....1B, (1D††)	1½	795	140	164	8500	3100	B6.00/20	P32x6	Own	6–3½x5	Own	U 4	No	Own	SF	H	5.28	34.8	7x2¾ x ⅜	C
3	.....2B-2D	2	1095	142	166	11000	3865	B6.50/20	DB6.50/20	Own	6–3¾x5	Own	U 4	No	Own	SF	H	5.83	38.4	7x3x¼	C
4	.....2H(2J††)	2	1625	142	184	13500	4475	B7.00/20	DB7.00/20	Own	6–3¾x5	Own	U 4	No	Own	BF	H	6.5	42.9	7x¼x3	C
5	.....3H(3J,3K††)	3	2035	153	205	16000	5125	B7.50/20	DB7.50/20	Own	6–3¾x5	Own	U 4	No	Own	BF	H	6.14	40.5	8 ⅜ x¼ x3	C
6	.....4H,4J,4M	4	3070	170	205	20000	6280	B9.00/20	DB9.00/20	Own	8–3¾x5	Own	U 4	Op	Own	SF	H	6.14	40.5	10x3x¼	C
7	Schacht.....10HA	2–3	1570	156	195	11500	4072	B7.00/20	DB7.00/20	Con 16C	6–3¾x4⅝	BL	U 4	No	Tim	BF	H	5.83	31.2	6x3x¼	C
8	.....20HA	2½–4	2185	160	207	15300	4783	B8.25/20	DB8.25/20	Her WXB	6–3¾x4½	Fu MLU	U 4	No	Tim	BF	H	6.06	38.5	6x3x¼	P
9	.....25HA	3–4½	2695	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6–4x4½	Fu MGU	U 4	No	Tim	BF	R	6.02	39.2	7x3x¼	P
10	.....28HA	4–5½	3050	146	227	23000	6600	B9.75/20	DB9.75/20	Her WXC	6–4x4½	Fu MGU	U 4	No	Tim	BF	R	6.83	43.8	7x3x¼	P
11	.....30HA	4½–6	3295	146	227	23000	6800	B9.75/20	DB9.75/20	Her WXC	6–4x4½	Fu MGU	U 4	No	Wis	2F	R	7.14	46.4	7x3x¼	P
12	.....35HA	5–7	3725	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6–4½x4½	Fu MGU	U 4	No	Own	2F	R	8.00	52.0	8½x3x ⅜	P
13	.....40H	5–7	4295	154	235	25500	7600	B9.75/20	DB9.75/20	Her YXC	6–4⅝x4¾	Fu VUOG	U 5	No	Own	2F	R	7.07	49.7	8½x3x ⅜	P
14	.....40HB	7–9	4695	154	235	29500	7750	B10.50/20	DB10.50/20	Her YXC	6–4⅝x4¾	Fu VUOG	U 5	No	Wis	2F	R	7.07	49.7	8½x3x ⅜	P
15	.....66HA	8–11	5895	152	247	35000	9820	B10.50/24	DB10.50/24	Her RXC	6–4⅝x5½	Fu VUOG	U 5	No	Wis	2F	R	7.07	49.8	8½x3x ⅜	P
16	.....(T)TR,HA	10	3645	148	174	35000	6250	B9.75/20	DB9.75/20	Her YXC3	6–4⅝x4¾	Fu VUOG	U 5	No	Tim	BF	R	7.8	55.1	7x3x¼	P
17	.....(T) TRDA	10	3895	148	174	39000	6450	B9.75/20	DB9.75/20	Her YXC3	6–4⅝x4¾	Fu VUOG	U 5	No	Own	2F	R	7.8	56.8	7x3x¼	P
18	Sterling.....FB40	1½–2	1135	142	162	10000	3450	B6.50/20	DB6.50/20	Con 25A	6–3¾x4	Wa T9	U 4	No	Own	BF	H	5.66	36.2	6x2⅝x ⅜	C
19	.....FB50	2–2½	1240	142	162	11000	3650	B7.00/20	DB7.00/20	Con 25A	6–3¾x4	Wa T9	U 4	No	Own	BF	H	5.66	36.2	6x2⅝x ⅜	C
20	.....FB60	2½–3	1590	142	162	12000	4150	B7.00/20	DB7.00/20	Wau TL	6–3¾x4¾	Wa T9	U 4	No	Own	BF	H	5.83	37.3	6x2⅝x ⅜	C
21	.....FB70	2½–3	2635	174	204	13000	5755	B7 50/20	B7.50/20	Wau ML	6–4x4¾	Own UC7	U 5	No	Own	BF	R	7.4	52.7	10x3¼x¼	L
22	.....FD80	3–4	3065	174	204	16000	6680	B8.25/20	DB8.25/20	Wau 6ML	6–4x4¾	Own UC7	U 5	Op	Own	2F	R	7.8	55.3	10x3¼x¼	L
23	.....FB80 Spec	3½–4	3010	174	204	16000	6680	B8.25/20	B8.25/20	Wau ML	6–4x4¾	Own UC7	U 5	No	Own	BF	R	7.8	55.6	10x3¼x¼	L
24	.....FC90	4	4105	174	204	18000	7480	B9.00/20	DB9.00/20	Wau 6MK	6–4½x4¾	Own UC7	U 5	Op	Own	CD	R	8.66	61.7	10x3¼x¼	L
25	.....FD90	4	3315	174	204	18000	7480	B9.00/20	B9.00/20	Wau MK	6–4½x4¾	Own UC7	U 5	No	Own	2F	R	8.0	57.0	10x3¼x¼	L
26	...FW97S,FD97S	4–5	4355	192	222	19500	8200	P36x8	DP36x8	Wau 6SRL	6–4⅝x5½	Own UC2	U 4	Op	Own	w/2F	R	7.75	51.6	12x3¼x¼	L
27	.....FC100	5–5½	4185	192	222	20000	7750	P36x8	DP36x8	Wau 6MK	6–4½x5½	Own UC2	U 4	Op	Own	CD	R	9.3	61.2	12x3¼x¼	L
28	.....FC105	5½	4645	192	222	21000	8000	B9.00/20	DB9.00/20	Wau 6SRS	6–4½x5½	Own UC	U 5	Op	Own	CD	R	8.66	61.7	12x3¼x¼	L
29	*...FW115, FD115	5–6	4690	192	222	23000	8750	P40x8	DP40x8	Wau 6SRL	6–4⅝x5½	Own UC2	U 4	Op	Own	w/2F	R	8.20	54.6	12x3¼x¼	L
30	.....FC107	5–6	4700	192	222	21500	8200	P36x8	DP36x8	Wau 6SRL	6–4⅝x5½	Own UC2	U 4	Op	Own	CD	R	8.20	54.6	12x3¼x¼	L
31	.....FC120S	7½	4900	192	222	24000	8400	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅝x5½	Own UC2	U 4	J	Own	CD	R	8.66	61.7	12x3¼x¼	L
32	*...FW140, FD140	7–8	6005	192	222	28000	10050	P40x8	DP42x9	Wau SRL	6–4⅝x5½	Own UC2	U 4	Op	Own	w/2F	R	10.0	66.6	15x3¼x¼	L
33	.....FC135	7–8	4800	192	222	27000	8900	P40x8	DP40x8	Wau SRL	6–4⅝x5½	Own UC2	U 4	Op	Own	CD	R	9.3	62.2	15x3¼x¼	L
34	*.....FC140	8–8½	5595	200	230	28000	9350	P40x8	DP40x8	Wau HB	6–4¼x5¾	Own UC2	U 4	Op	Own	CD	R	8.3	55.2	15x3¼x¼	L
35	*.....FC145	8–8½	6180	200	230	29000	10100	P40x8	DP40x8	Wau AB	6–4½x5¾	Own UC8	U 4	Op	Own	CD	R	9.4	58.9	15x3¼x¼	L
36	*...FW170, FD170	9½–10½	6980	200	230	34000	10550	P40x8	DP44x10	Wau AB	6–4½x5¾	Own UC8	U 4	Op	Own	w/2F	R	10.0	62.7	15x3¼x¼	L
37	*.....FC170	9½–10½	6900	200	230	34000	10550	P40x8	DP42x9	Wau RB	6–5x5¾	Own UC8	U 4	Op	Own	CD	R	9.4	58.9	15x3¼x¼	L
38	.....FD195	12–12½	8925	200	230	39000	10750	B10.50/20	DB10.50/20	Cum H Die	6–4⅞x6	BL 734	U 4	Op	Wis 1910W	2F	R	8.88	55.8	15x3¼x¼	L
39	Stewart.....41X	¾	695	124	134	.....	2875	B6.50/18	DB6.50/18	Lyc	6–3¼x4½	WG	U 4	No	Cla	S½	H	5.4	35.1	6x2¼x ⅜	T
40	.....42X	1½	795	134	176	.....	3525	R6.50/–0	B6.50/20	Lyc	6–3¼x4½	WG	U 4	No	Cla	SF	H	5.6	35.8	7½x2¾x ⅜	T
41	.....43X	2	995	145	176	.....	4005	B6.50/20	DB6 50/20	Lyc	6–3⅜x4½	WG	U 4	No	Cla	SF	H	6.3	22.	7½x2¾x ⅜	T
42	.....29XS	2	1695	145	190	.....	4990	B.700/20	DB7.00/20	Lyc	6–3⅜x4½	Ful	U 4	No	Cla	SF	R	6.37	44.4	7½x2¾x ⅜	T
43	.....32X	2½	1990	165	220	.....	5260	B7.00/20	DB7.00/20	Lyc	6–3¾x4½	Fu	U 4	No	Cla	SF	R	6.37	44.4	7½x2¾x¼	T
44	58-8	2½	2390	170	226	.....	5970	B7.50/20	DB7.50/20	Lyc	8–3¾x4½	Fu	U 4	No	Cla	SF	R	7.25	47.0	9x2¾x ⅜	T
45	.....18X	3	2690	165	220	.....	6400	B7.50/20	DB7.50/20	Lyc	6–3½x5	Fu	U 4	No	Tim	WF	R	7.25	47.5	9x2¾x ⅜	T
46	48-8	3	2990	170	241	.....	6750	B8.25/20	DB8.25/20	Lyc	8–3¾x4¾	BL	U 4	No	Cla	SF	R	7.12	50.1	9x2¾x ⅜	T
47	.....19X	3½	3690	165	235	.....	7110	B9.00/20	DB9.00/20	Lyc	6–3¾x5	Fu	U 4	A 3	Tim	WF	R	7.25	127.	9x2¾x ⅜	T
48	38-6	3½	3990	170	241	.....	7600	B9.00/20	DB9.00/20	Wau	6–4⅜x5½	BL	U 4	A 3	Tim	2F	R	7.3	147.	9x2¾x ⅜	T
49	38-8	3½	3990	170	241	.....	7600	B9.00/20	DB9.00/20	Lyc	8–3¾x4¾	BL	U 4	A 3	Tim	2F	R	7.3	147.	9x2¾x ⅜	T
50	.....31X	5	5190	165	235	.....	9340	B9.75/20	DB9.75/20	Wau	6–4⅜x5½	BL	U 4	A 3	Tim	WF	R	8.2	15.1	9 ⅜ x2¾x ⅜	T
51	.....27XS	7	6190	165	235	.....	10300	B10.50/24	DB10.50/24	Wau	6–4⅜x5½	BL	U 4	A 3	Tim	WF	R	6.56	93.8	9 ⅜ x2¾x ⅜	T
52	Studebaker. (11)S-2	1½–2	670	130	165	9000	3110	B6.00/20	P32x6	Own	6–3¼x4½	War T9	U 4	No	Cla B373	SF	H	5.66	36.2	6x2¾x ⅜	T
53	.....S-4	1¾–2½	785	130	165	10500	3385	B6.00/20	DB6.00/20	Own	6–3¼x4⅝	War T9	U 4	No	Cla B412	SF	H	6.8	43.5	6x2¾x ⅜	.....
54	.....S-6	2-3	945	141	165	12000	3930	B6.50/20	DB6.50/20	Own	6–3¼x4⅝	War T9	U 4	No	Tim 54200	SF	H	6.8	43.5	7x2¾x ⅜	T
55	.....S-8	3-4	1350	141	183	16000	4855	B6.50/20	DP32x6	Own	6–3¼x4⅝	War T9	U 4	A 2	Tim 58200	SF	H	6.8	75.8	8x2¾x ¼	T
56	Walter.....FN	2½–3	4500	120	144	15000	6500	B9.00/20	B9.00/20	Own 6MK	6–4¼x4¾	Own FN	U 5	No	Own FN	2D	H	7.0	70.0	7x2¾x ¼	P
57	.....FM	3½–4	5500	120	144	18000	7500	B9.00/20	1 B9.00/20	Own 6SRL	6–4⅜x5½	Own FM	U 5	No	Own FM	2D	H	6.00	60.0	12x2¾x ¼	P
58	.....FKD	4–6	6300	118	136	24000	8500	B9.00/24	DB9.00/24	Own 6SRL	6–4⅜x5½	Own FK	U 5	No	Own FK	2D	H	8.50	85.0	11x3x¼	P
59	.....FCS	5–7	7200	136	160	27000	9500	B9 75/24	DB9.75/24	Own 6SRK	6–4⅝x5½	Own FK	U 5	No	Own FH	2D	H	8.5	85.0	13x3x¼	P
60	.....FBS	5–7	7900	136	160	27000	9500	B9.75/24	DB9.75/24	Own 6RB	6–5x5¾	Own FH	U 5	No	Own FH	2D	H	8.5	85.0	13x3x¼	P
61	.....FBRS	7-9	8300	136	160	32000	10500	B10.50/24	DB10.50/24	Own 6RB	6–5x5¾	Own FH	U 5	No	Own FHR	2D	H	8.5	85.0	13x3x¼	P
62	White (12).....60K	1¼–1½	1850	112	112	.....	3905	B7 00/20	Own 2A	6–3½x4½	Own 3BC	U 3	No	Own 4C	S½	H	5.87	22.2	5x3x ⅜	C
63	601	1¼–1½	1850	138	157	.....	4210	B7.50/20	Own 2A	6–3½x4½	Own 8B	U 4	No	Own 4C	S½	H	4.73	19.5	6x2⅝x ⅜	C
64	161	1¼–1½	1700	138	157	.....	4420	B7.50 20	B7.50/20	Own GRCB	4–4x5¾	Own 8B	U 4	No	Own 4C	S½	H	4.73	19.5	6x2⅝x ⅜	C
65	602	1½–2	2050	138	157	.....	4500	B7.00/20	DB7.00/20	Own 2A	6–3½x4½	Own 5B	U 4	No	Own 4CB	S½	H	4.73	19.5	6x2⅝x ⅜	C
66	162	1½–2	1900	138	157	.....	4710	B7 00/20	DB7.00/20	Own GRCB	4–4x5¾	Own 8B	U 4	No	Own 4CB	S½	H	4.73	19.5	6x2⅝x ⅜	C
67	611	2–2½	2450	148	196	.....	4960	B7.00/20	DB7.00/20	Own 4A	6–3¾x4½	Own 5B	U 4	No	Own 7C	S½	H	5.67	23.4	6½x3 ⅜ x¼	C
68	211	2–2½	2300	148	198	.....	5170	B7.00/20	DB7.00/20	Own GRCB	4–4x5¾	Own 8B	U 4	No	Own 7C	S½	H	5.67	23.4	6½x3 ⅜ x¼	C
69	56	2–2½	3125	165	175	.....	5276	S36x4	S36x7	Own GRC	4–4x5¾	OwnGRBB	U 4	No	Own 3C	S½	H	6.33	26.2	7x3x¼	C
70	612	2½–3	2800	148	196	.....	5295	B7.50/20	DB7.50/20	Own 4A	6–3¾x4½	Own 5B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3 ⅜ x¼	C
71	212	2½–3	2650	148	198	.....	5500	B7.50/20	DB7.50/20	Own GRCB	4–4x5¾	Own 8B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3 ⅜ x¼	C
72	620	2½–3	4350	157	195	.....	7430	B8.25/20	DB8.25/20	Own 3AD	6–4x5¼	Own 4B	U 4	No	Own 14C	SF	R	6.38	41.8	7 ⅜ x2 ⅜ x⅜	C
73	.....51A	2½–4	3750	170	190	.....	6438	S36x5°	S36x8°	Own GRB	4–4¼x5¾	OwnGRBA	U 4	No	Own 51A	S½	H	7.14	35.6	8x3¾x ¼	C
74	618	3-4	3600	166	206	.....	6675	B9.00/20	DB9.00/20	Own 4AB	6–3¾x4	Own 11BA	U 5	No	Own 14CB	2F	R	8.15	61.8	8x3¾x ¼	C
75	621	3-4	4650	157	195	.....	7945	B9.00/20	DB9.00/20	Own 3AD	6–4x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	7 ⅜ x2 ⅜ x⅜	C
76	630	3–4½	5000	168	215	.....	8500	B9.00/20	DB9.00/20	Own 3AD	6–4x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	8x3x¼	C
77	640	3–4½	6100	180	214	.....	9200	B9.00/20	DB9.00/20	Own 1AB	6–4¾x5¾	Own 7B	U 4	No	Own 10C	SF	R	5.18	33.9	8¼x3 ⅜ x ⅜	C
78	58	3–5	4400	180	195	.....	7797	S36x5°	DS36x5°	Own GRB	4–4¼x5¾	Own 4B	U 4	No	Own 2C	2F	R	7.6	49.7	8¼x3 ⅜ x ⅜	C
79	.....58-SS	7½	5300	196	196	.....	9300	B10.50/24	DB10.50/24	Own GRB	4–4¼x5¾	Own 4B	U 4	No	Ov.n 6C	2F	R	11.8	77.5	10¼x3x ⅜	C
80	55	5	4650	174	215	.....	8737	S36x5°	DS40x5	Own GRB	4–4¼x5¾	OwnGRBA	U 4	No	Own 55	2F	R	10.1	66.1	8x18.4 lb.	I
81	631	3½–6	5750	168	215	.....	9000	B9.75/20	DB9.75/20	Own 3AD	6–4x5¼	Own 4B	U 4	No	Own 2C	2F	R	8.70	56.9	8x3x¼	C
82	641	3½–6	6450	180	214	.....	9700	B9.75/20	DB9.75/20	Own 1AB	6–4¾x5¾	Own 7B	U 4	No	Own 2C	2F	R	7.16	46.9	8¼x3 ⅜ x ⅜	C
83	642	4–7½	6750	180	214	.....	10600	B9.75/24	DB9.75/24	Own 1AB	6–4¾x5¾	Own 7B	U 4	No	Own 13C	2F	R	10.2	66.5	8¼x3 ⅜ x ⅜	C
84	52	5–7½	5100	174	215	.....	9409	S36x6°	S40x12	Own GRB	4–4¼x5¾	OwnGRBA	U 4	No	Own 52	2F	R	11.7	58.4	8x18.4 lb.	I
85	643	5–9	6950	180	214	.....	10900	B10.50/24	DB10.50/24	Own 1AB	6–4¾x5¾	Own 7B	U 4	No	Own 13C	2F	R	10.2	66.5	8¼x3 ⅜ x ⅜	C
86	691	7–9	7250	129	129	.....	12200	B10.50/24	DB10.50/24	Own 5AD	6–4¾x5¾	Own 10BB	U 5	No	Own 13CB	2F	R	10.2	63.4	8¼x3¼x ⅜	C
87	Willys Over. 6 .C113	½	415	113	113	4000	1875	B5.00/19	B5.00/19	Own C113	6–3¼x3⅞	Own C113	U 3	No	Own C113	S½	H	4.6	12.	5¼x2¼x ⅜	C
88	.....C131	1½	595	131	131	7600	2750	B5.50/20	P32x6	Own C131	6–3¼x3⅞	War T9	U 4	No	Cla B373B	SF	H	6.3	40.8	6x2¾x ⅜	T
89	.....C157	1½	675	157	157	8300	3050	B6.00/20	DB6.00/20	Own C157	6–3¼x3⅞	WG T9	U 4	No	Cla B373B	SF	H	6.3	40.8	7 ⅜ x2¾x ⅜	T
90	World.....DA-60	1	1195	150	166	8500	3650	B6.00/20	DB6.00/20	Lyc WTG	6–3¼x4¼	WG T9	U 4	No	Tim 53200H	SF	H	6.38	40.8	6¾x2¾x ⅜	T
91	.....DB-60	1½	1545	150	166	10000	3900	B6.50/20	DB6.50/20	Lyc 48L	6–3¼x4½	WG T9	U 4	No	Tim 53200H	SF	H	6.38	40.8	6¾x2¾x ⅜	T
92	.....DC-60	2	1845	150	164	12000	4450	B7.00/20	DB7.00/20	Lyc 48L	6–3¼x4½	WG T9	U 4	No	Tim 54200H	SF	H	6.8	43.5	6x3x¼	T
93	.....DA-88	2	2300	151	167	12000	4720	B7.50/20	DB7.50/20	Lyc GU	8–3x4¾	Fu MLU	U 4	No	Tim 54200H	SF	H	6.8	44.2	6x3x¼	T
94	.....DB-88	2½	2595	164	178	13500	5040	B8.25/20	DB8.25/20	Lyc GU	8–3x4¾	Fu MLU	U 4	No	Tim 56200H	SF	R	7.4	48.1	7x3x¼	T
95	.....DC-88	3	3295	164	182	15000	5400	P34x7	DP34x7	Lyc HD	8–3¼x4½	Fu MGU	U 4	No	Tim 56200H	SF	R	7.4	48.1	7x3x¼	T
96	.....DA-115	4	3595	168	182	17500	6100	P36x8	DP36x8	Lyc HD	8–3¼x4½	Fu MGU	U 4	No	Tim 58200H	SF	R	7.8	50.7	8x3x¼	T
97	.....DB-115	5	3895	165	191	20000	6550	P36x8	DP36x8	Lyc HD	8–3¼x4½	Fu MGU	U 4	No	Tim 65706D	WF	R	8.5	55.2	8x3x¼	T
	Six-Wheelers																				
98	Autocar...6GE	15	11000	198	234	.....	16300	B9.75/22	DB9.75/22	Ste LT	6–5¼x6	BL 734	U 4	A 3	Tim SW410	WF	R	8.2	99.6	10½x8x ⅜	T
99	Chicago..1-56-D	4 10	6000	198	222	39000	12740	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅜x5½	BL 60	A 7	No	Tim 300W	WF	R	7.75	73.6	8x3½x ⅜	T
100	Corbitt..20SW6	4R 3–5	5720	Op	Op	26000	9000	B7.00/20	DB7.50/20	Con 20R	6–4¼x4¾	BL 615	U 5	No	TimSW150W	w/2F	H	Opt	Opt	8x3½x ¼	C
101	.....28SW6	4R 5–7½	6380	Op	Op	33000	10000	P34x7	DP34x7	Con 21R	6–4¾x4¾	BL 607	A 7	No	TimSW250W	w/2F	H	Opt	Opt	8x3½x ¼	C
102	.....36SW6	4R 7½–10	8800	Op	Op	40500	11500	B36x8	DP36x8	Con 21R	6–4¾x4¾	BL 607	A 7	No	TimSW310W	w/2F	H	Opt	Opt	10½x3½x ⅜	C
103	.....40SW6	4R 10–15	11000	Op	Op	54200	13000	P38x9	DP38x9	Con 16H	6–4¾x5¾	BL 707	A 7	No	TimSW410W	w/2F	R	Opt	Opt	10½x3½x ⅜	C
104	Day Elder..285	4R 8	5295	164	232	28500	12000	B8.25/20	DB8.25/20	Con 21R	6–4¾x4¾	BL 538	A 5	No	TimSwD210h	WF	R	7.5	71.2	10x3¾x ⅜	T
105	345	4R 10	6395	164	232	34500	12500	B9.00/20	DB9.00/20	Con 21R	6–4¾x4¾	BL 748	A 7	No	TimSwd310w	WF	R	8.5	79.9	10x3¾x ⅜	T
106	402	4R 12	7495	164	232	40200	14200	B9.75/20	DB9.75/20	Con 16H	6–4¾x5¾	BL 748	A 7	No	TimSwd410w	WF	R	9.0	84.6	10x3¾x ⅜	T
107	Diamond T.801	4R 4	4140	189	219	21000	8500	P36x8	P36x8	Her YXC	6–4⅝x4¾	BL 55	A 7	No	Own	WF	H	Opt	Opt	6½x3¾x¼	P
108	1201	4R 6	5600	180	210	28000	11000	P34x7	DP34x7	Her RXB	6–4½x5¼	BL 60	A 7	No	Tim SW200	WF	R	Opt	Opt	9x3½x¼	P
109	1602	4R 8	6400	175	210	36000	11700	P36x8	DP36x8	Her RXC	6–4⅝x5¼	BL 60	A 7	No	Tim SW310	WF	R	Opt	Opt	9x3½x¼	P
110	1603	4R 8	7500	184	224	36000	12500	P36x8	DP36x8	Wau 6RB	6–5x5¾	BL 70	A 7	No	Tim SW310	WF	R	Opt	Opt	9x3½x¼	P
111	Dodge Bros..UGS50	1½–3	875	153	153	12000	3575	B6.00/20	P32x6	Own	4–3⅝x4¾	Own	U 4	No	Own	SF	H	5.85	36.1	7 ⅜ x2⅝x ⅜	C
112	.....GS50	1½–3	935	153	153	12000	3650	B6.00/20	P32x6	Own	6–3¼x4¼	Own	U 4	No	Own	SF	H	5.85	36.1	7 ⅜ x2⅝x ⅜	C
113	.....GS55	2–4	1260	158	158	14575	4450	B7.00/20	DB7.00/20	Own	6–3¼x4⅝	Own	U 5	No	Own	SF	H	6.37	50.9	8½x2¾x ⅜	C
114	Douglas....F66	4R 5	7900	210	Op	36000	10000	P35x8	DP36x8	Bud GL6	6–4½x6	Fu HOG	U 8	A 8	Wis 8017	WF	R	7.75	72.7	10x2½x ⅜	T
115	Federal..D2SW	2R 3	1050	140	182	13750	3925	B6.00/20	P32x6	Con W10	4–3¾x4¼	WG T9	U 4	No	Cla B373A	SF	H	6.38	40.8	6x2¾x ¼	C
116	.....E2SW	2R 3	1150	145	187	13750	3975	B6.00/20	P32x6	Con 17E	6–3¾x4	WG T9	U 4	No	Cla B373A	SF	H	6.38	40.8	6x2¾x ¼	C
117	.....D2D	4R 3	1350	140	182	14000	4235	B6.00/20	P32x6	Con W10	4–3¾x4¼	WG T9	U 4	No	Cla B373A	BF	H	6.38	40.8	6x2¾x ¼	C
118	⁂.....E2D	4R 3	1450	145	187	14000	4310	B6.00/20	P32x6	Con 17E	6–3¾x4	WG T9	U 4	No	Cla B373A	BF	H	6.38	40.8	6x2¾x ¼	C
119	.....A6SW	2R 4	1925	164	182	18500	6050	P32x6	DP32x6	Con 16C	6–3⅝x4½	Own 7776	A 4	No	Cla B610A	BF	H	6.38	38.5	6x3½x ¼	C
120	(con't)..A600SW	2R 4½–5	2395	170	206	20000	7300	B7.50/20	DB7.50/20	Con E601	6–3⅞x4½	Own 7784	A 4	No	Cla B642	BF	H	7.16	46.7	6x3½x ¼	P

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	Auxiliary Type
1	205	4.9	136	23.3	51–2500	L	G	B	5–3⅛	8⅛	FP	No	Zen	M	DR	DR	P.Lo	Pe	Cle	Own	Ros	L4IH	246	P	TX	102⅛	60	34	40x2	50x2½	O
2	230	5	3	152	23.4	68–2800	L	C	A	7–2⅛	12	CC	No	Zen	M	DR	DR	P.Lo	Ow	Cle	Own	Ros	L4IH	246	P	TX	102	60	34	40x2	50x2½	O
3	268	4.9	175	27.3	75–2800	L	C	A	7–2⅛	12	CC	No	Zen	M	DR	DR	P.Lo	Ow	Cle	Own	Ros	L4IH	289	C	TX	105¼	60½	34	40x2¼	52x2½	½
4	268	4.9	175	27.3	75–2800	L	C	A	7–2⅛	12	CC	No	Zen	M	DR	DR	P.BL	Mc	Cle	Own	Ros	L4IH	344	a	TX	116⅜	60½	34	40x2½	52x2½	½
5	309	4.9	200	31.5	85–2800	L	C	A	7–2⅛	12	CC	No	Zen	M	DR	DR	P.BL	Mc	Cle	Own	Ros	L4IH	390	a	FD	124½	68⅛	34	44x3	54x3	½
6	358	4.9	230	36.4	110–3800	L	G	A	9–2⅜	12½	FP	EV	Sch	M	DR	DR	dp.Lo	Mc	Cle	Own	Ros	L4IHV	390	a	FD	143	83	34	44x3	56x3½	½
7	248	5.1	150	27.3	65–2600	L	G	C	7–2⅜	10½	FP	No	Zen	M	DR	DR	D.BL	Yo	Spi	Tim	Ros	L4IH	380	G	TX	129½	Opt	31½	40x2½	50x3	½
8	298	4.7	192	33.7	66–2200	L	G	C	7–2⅜	13½	PC	No	Zen	M	AL	AL	D.BB	Yo	Spi	Tim	Ros	L4IHV	452	G	TX	129½	Opt	31½	40x2½	50x3	½
9	339	4.7	225	38.4	73–2200	L	G	C	7–2⅜	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	578	G	TX	106	Opt	31½	40x2½	50x3	½
10	339	4.7	225	38.4	73–2200	L	G	C	7–2⅜	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	658	G	TX	106	Opt	31½	40x2½	50x3	½
11	339	4.7	225	38.4	73–2200	L	G	C	7–2⅜	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	658	G	TX	106	Opt	31½	40x2½	50x3	½
12	360	4.7	238	40.3	80–2200	L	G	C	7–2⅜	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	768	H	TD	106	Opt	31½	40x2½	50x3	½
13	428	4.4	280	45.9	93–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IH	768	H	TD	106	Opt	31½	40x2½	50x3	½
14	428	4.4	280	45.9	93–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	G	TD	106	Opt	31½	40x2¼	50x3	½
15	529	4.9	355	51.2	115–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu	Own	Ws4IA	847	G	TD	118	Opt	31½	42x3	60x3½	½
16	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IH	768	G	TD	91¾	Opt	31½	40x2½	50x3	½
17	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IH	893	H	TD	92⅛	Opt	31½	40x2½	50x3	½
18	214	5.0	137	28.0	72–3300	L	C	A	4–2¾	6⅜	CC	....	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	269	P	TX	96	57	34	38x2¼	50x2½	N
19	214	5.0	137	28.0	72–3300	L	C	A	4–2¾	6⅜	CC	....	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	269	P	TX	96	57	34	38x2¼	50x2½	½
20	255	5.0	175	28.0	68–2600	L	G	C	4–2¾	7⅜	CC	....	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 31000H	Ros	L4IH	282	P	TX	96	57	34	38x2¼	50x2½	½
21	358	4.4	230	38.4	80–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 33000H	Ros	L4IHV	330	a	CX	144	91	34	42x2½	54x3	½
22	358	4.4	230	38.4	80–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 33000H	Ha	L4IHV	396	a	CX	144	91	34	42x2½	54x3	½
23	358	4.4	230	38.4	80–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 33000H	Ha	L4IHV	392	a	CX	144	91	34	42x2½	54x3	½
24	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 33000H	Ha	O2IMV	466	s	JX	144	91	34	42x2½	54x3	½
25	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 33000H	Ha	L4IHV	397	a	CX	144	91	34	42x2½	54x3	½
26	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 35000H	Ros	L4IHV	664	a	CX	172	108	34	48x3	54x3	½
27	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 35000H	Ros	O2IMV	576	a	JX	172	108	34	48x3	54x3	½
28	411	4.6	250	40.8	91–2400	L	G	A	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 35000N	Ros	O2IMV	562	s	JX	172	108	34	48x3	54x3	½
29	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 35000H	Ros	L4IHV	664	a	CX	172	108	34	48x3	54x3	½
30	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 35000N	Ros	O2IMV	576	a	JX	172	108	34	48x3	54x3	½
31	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 35000N	Ros	O2IMV	658	a	JX	172	108	34	48x3	54x3	½
32	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 26450TN	Ros	Ws4IA	690	a	CX	172	108	34	48x3	60x4	½
33	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 26450N	Ros	O2IMV	500	s	JX	172	108	34	48x3	54x3	½
34	489	4.5	295	43.4	90–2000	L	G	C	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 26450N	Ros	O2IMV	666	s	JX	168	107	34	48x3	54x3	½
35	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 26450N	Ros	O2IMV	666	s	JX	168	107	34	48x3	54x3	½
36	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 27050TW	Ros	Ws4IA	690	a	CX	163	107	34	48x3	60x4	½
37	677	4.4	440	60.0	125–2000	L	G	A	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim 27450N	Ros	O2IMV	666	s	JX	168	107	34	48x3	54x3	½
38	672	17	420	57.0	125–1800	G	G	C	7–3¼	16½	CC	En	....	....	CI	LN	P.BL	Mo	Spi	Tim 27450TN	Ros	Ws4IA	718	a	CX	163	107	34	48x3	60x4	½
39	207	4.8	142	23.4	56–2600	L	G	C	4–2⅜	7	PC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	180	E	4X	81	41¾	32½	38½x2¼	50x2½	..
40	224	4.8	142	25.3	62–2800	L	G	C	4–2⅜	8¼	PC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	257	E	TX	92	51½	32½	38x2½	50x2½	N
41	242	5.	162	27.3	65–2800	L	G	C	4–2⅜	8¼	PC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	257	E	TX	103¼	62⅝	32½	38½x2¼	50x2½	½
42	299	5.0	193	33.8	85–2750	L	G	C	4–2⅜	9⅛	FP	Mo	Str	P	DR	DR	D.Fu	Fe	Spi	Cla	Ros	B4IM	308	E	TX	104⅝	58⅝	32½	38x2¼	50x3	½
43	299	5.0	193	33.8	85–2750	L	G	C	4–2⅜	9⅛	FP	Mo	Str	P	DR	DR	D.Fu	Fe	Spi	Cla	Ros	B4IM	348	E	TX	127⅞	79⅛	32½	38x2¼	50x3	½
44	354	4.6	221	36.2	90–2750	L	G	C	4–2⅜	10	FP	Mo	Str	P	DR	DR	D.Fu	Fe	Spi	Tim	Ros	B4IM	453	E	TX	129¾	79⅛	32¼	40x3	56x3	½
45	322	5.2	225	36.5	90–2750	L	G	C	5–2⅜	11	CC	Mo	Str	P	DR	DR	D.Fu	Fe	Spi	Cla	Ros	B4IM	348	E	TF	126¾	79⅛	32¼	40x3	50x3	½
46	420	5.2	300	44.4	130–2800	L	G	C	5–2⅜	12¾	FP	No	Str	P	DR	DR	P.BL	Fe	Spi	Cla	Ros	B4IMV	348	E	TX	128⅛	75⅛	32¼	40x3	56x3	½
47	354	4.6	224	36.2	90–2750	L	G	C	4–2⅜	10	PS	Mo	Str	P	DR	DR	D.Fu	Fe	Spi	Eat	Ros	B4IM	453	E	TX	126¾	76¼	32¼	40x3	56x3	½
48	462	4.6	300	45.9	100–2000	L	G	C	7–3	12⅞	FP	Mo	Str	P	DR	DR	D.BL	Fe	Spi	Eat	Ros	B4IMV	453	E	TX	128⅛	75⅝	32¼	40x3	56x3	½
49	420	5.2	300	44.4	130–2800	L	G	C	5–2⅜	12¾	FP	No	Str	P	DR	DR	D.BL	Fe	Spi	Eat	Ros	B4IMV	453	E	TX	128⅛	75⅝	32¼	40x3	56x3	½
50	516	4.5	330	51.2	110–2000	L	G	C	7–3	12⅞	PS	Wa	Str	P	DR	DR	D.BL	Mo	Spi	Eat	Ros	B4IMV	565	E	TX	128⅞	73⅞	34	40x3	56x4	½
51	516	4.5	330	51.2	110–2000	L	G	C	7–3	12⅞	FP	Wa	Str	P	DR	DR	D.BL	Mo	Spi	Eat	Ros	Ws4IA	759	E	TX	128⅞	73⅞	34	40x3	56x4	½
52	230	4.6	154	25.4	75–3200	L	G	C	4–2½	8⅛	CC	No	Str	M	DR	DR	P.Lo	Mc	Spi	Cla 208B	Ros	B4IM	231	a	4I	83¼	48⅛	34	36x1¾	45x2½	O
53	230	4.6	154	25.4	75–3200	L	G	C	4–2½	8⅛	CC	Ha	Str	M	DR	DR	DP.Lo	Mc	Cle	Tim 31010	Ros	B4IMV	284	D	4I	97¼	60	34	39x2	56x3	½
54	230	4.6	154	25.4	75–3200	L	G	C	4–2½	8⅛	CC	Ha	Str	M	DR	DR	DP.Lo	Mc	MM	Tim 31020	Ros	B4IMV	420	a	4I	97⅞	60	34	39x2½	56x3	½
55	230	4.6	154	25.4	75–3200	L	G	C	4–2½	8⅛	CC	Ha	Str	M	DR	DR	P.Lo	Mc	Spi	Cla 208B	Ros	B4IMV	231	Pa	4I	83¼	48¼	34	36x1¾	45x2½	½
56	381	4.5	240	40.0	85–2200	L	G	C	7–2⅜	12⅜	FP	Ow	Zen	P	DR	DR	P.Ow	Ow	Own	Own FN	Ros	O4FXM	450	D	FM	126	84	34	48x3	48x3	½
57	462	4.5	300	46.0	100–1900	L	G	C	7–3	13⅞	FP	Ow	Zen	P	DR	DR	P.Ow	Ow	Own	Own FM	Ros	O4FXM	450	D	FM	126	84	34	48x4	48x4	½
58	462	4.5	300	46.0	100–1900	L	G	C	7–3	13⅞	PC	Ow	Zen	V	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	108	78	36	52x4	52x4	½
59	517	4.5	330	51.0	110–1900	A	C	C	7–3	13⅞	PC	Ow	Zen	V	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x4	½
60	677	4.5	440	60.0	130–1900	L	G	C	7–3½	10⅜	PC	Ow	Zen	P	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x4	½
61	677	4.5	440	60.0	130–1900	L	G	C	7–3½	10⅜	PC	Ow	Zen	P	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x5	½
62	260	4.8	150	29.4	54–2100	L	C	S	7–2⅜	10⅛	FP	No	Zen	V	DR	LN	P.Ow	Ow	Spi	Own 4D	Ha	L4IH	276	a	TX	....	....	34½	39x2¼	50x2½	N
63	260	4.8	150	29.4	54–2100	L	C	S	7–2⅜	10⅛	FP	No	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	39x2¼	50x2½	N
64	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	39x2¼	50x2½	N
65	260	4.8	150	29.4	54–2100	L	C	S	7–2⅜	10⅛	FP	No	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	39x2¼	50x2½	N
66	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	39x2¼	50x2½	N
67	299	4.8	190	33.7	70–2100	L	G	C	7–2⅜	10⅛	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	115⅛	68⅛	34½	41x2½	54x3	N
68	289	4.3	170	25.6	45–2000	H	C	S	7–2¾	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	115⅛	68⅛	34½	41x2½	54x3	N
69	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	ns	P.Ow	Ow	Spi	Own 3D	Ow	O2IM	268	C	CI	119½	81½	36	41½x2½	47½x3	N
70	299	4.8	190	33.7	70–2100	L	C	C	7–2⅜	10⅛	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	CX	115⅛	68⅛	34½	41x2½	54x3	N
71	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	115⅛	68⅛	34½	41x2½	54x3	N
72	396	4.9	250	38.4	100–2100	H	C	S	7–2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 11D	Ros	LO4IHV	414	a	CI	107½	67½	34	41x2½	54x3	N
73	326	4.3	207	28.9	54–1600	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	ns	P.Ow	Ow	Spi	Own 51A	Ow	O2IM	335	a	CX	146	84¾	34	40½x2½	54½x3	N
74	299	5.5	202	33.7	77–2400	L	C	S	7–2⅜	10⅛	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 11DC	Ros	LO4IHV	414	a	2I	140⅛	84⅛	34	41x2½	54x3	N
75	396	4.9	250	38.4	100–2100	H	C	S	7–2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 11D	Ros	LO4IH V	484	a	CI	107½	67½	34	41x2½	54x3½	N
76	396	4.9	250	38.4	100–2100	H	C	S	7–2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 6D	Ros	O4IHV	553	a	CI	144⅞	84⅞	34	42x3	56x3½	N
77	519	4.0	333	45.9	118–2100	H	C	S	7–3	15⅛	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 6D	Ros	O4IA	553	a	CI	156¾	91¾	34	42x3	56x3½	N
78	326	4.3	207	28.9	54–1600	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	ns	P.Ow	Ow	Spi	Own 2D	Own	OPXM	224	a	2I	148½	93½	34⅛	40½x3	56x3½	N
79	326	4.3	207	28.9	54–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	OPXM	224	a	2I	176	120	38½	42x3	57x5	N
80	326	4.3	207	28.9	54–1600	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	ns	P.Ow	Ow	Spi	Own 55	Own	OPXM	224	a	2I	167⅝	107½	42½	44x3	51½x5	N
81	396	4.9	250	38.4	100–2100	H	C	S	7–2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	144⅞	84½	34⅛	42x3	56x3½	N
82	519	4.0	333	45.9	118–2100	H	C	S	7–3	15⅛	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	156¾	91¾	34⅛	42x3	56x3½	N
83	519	4.0	333	45.9	118–2100	H	C	S	7–3	15⅛	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 9D	Ros	O4IA	623	a	CI	156¾	91¾	34⅛	42x3	51½x5	N
84	326	4.3	207	28.9	54–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	ns	P.Ow	Ow	Spi	Own 52	Ow	OPXM	224	a	2I	167⅝	107½	42½	44x3	51½x5	N
85	519	4.0	333	45.9	118–2100	H	C	S	7–3	15⅛	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 9D	Ros	O4IA	623	a	CI	156¾	91¾	34⅛	42x3	51½x5	N
86	580	4.6	385	51.3	130–2300	H	C	S	7–3	15⅜	FP	Ow	Zen	M	DR	LN	P.Ow	Ow	Spi	Own 5D	Ros	O4IA	623	a	TD	100	65	36	44x3	55⅝x5	N
87	193	5.2	135	25.3	65–3400	L	C	C	4–2⅜	6⅜	CC	No	Ti	M	AL	AL	P.Ow	Fe	Spi	Own C113	Own	B4IM	143	P	4I	54⅛	27¾	43¼	36½x1¾	51x1¾	N
88	193	5.2	135	25.3	65–3400	L	C	C	4–2⅜	6⅜	CC	No	Ti	M	AL	AL	P.Ow	Fe	Spi	Own C131	Own	B4IM	235	a	4I	86¼	51½	37	36x1¾	45x2½	N
89	193	5.2	135	25.3	65–3400	L	C	C	4–2⅜	6⅜	CC	No	Ti	M	AL	AL	P.Ow	Fe	Spi	Own C157	Own	B4IM	235	a	4I	121⅜	77⅜	37	36x1¾	45x2½	N
90	201	5.5	142	21.6	63–2900	L	G	C	4–2⅜	7	CC	No	Zen	V	AL	AL	dp.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	268	p	TX	126	70	34	38x2½	54x2½	½
91	224	4.7	145	25.3	61–2750	L	G	C	4–2⅜	7⅛	PC	No	Zen	V	AL	AL	dp.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	268	p	TX	126	70	34	38x2½	54x2½	½
92	224	4.7	145	25.3	61–2750	L	G	C	4–2⅜	7⅛	PC	No	Zen	V	AL	AL	dp.Lo	Pe	Blo	Shu 5427	Ros	L4IH	306	E	TX	126	70	34	38x2½	54x2½	½
93	268	5.3	184	28.8	96–3400	L	C	C	5–2⅜	8⅝	CC	Ha	Zen	M	AL	AL	dp.Lo	Pe	Blo	Shu 5427	Ros	L4IH	306	E	TD	126	71	34	38x2½	54x2½	½
94	268	5.3	184	28.8	96–3400	L	C	C	5–2⅜	8⅝	CC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Blo	Shu 5432	Ros	L4IHV	354	E	TD	Opt	88	34	38x2½	54x2½	½
95	298	5.2	205	33.8	115–3300	L	C	C	5–2⅜	10	PC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Spi	Shu 5432	Ros	L4IHV	354	E	TD	Opt	88	34	38x2½	54x2½	½
96	298	5.2	205	33.8	115–3300	L	C	C	5–2⅜	10	PC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Spi	Shu 5572	Ros	L4IHV	397	E	TD	Opt	88	33½	42x3	56x3	½
97	298	5.2	205	33.8	115–3300	L	C	C	5–2⅜	10	PC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Spi	Shu 5572	Ros	L4IHV	643	E	TD	Opt	85	33½	42x3	56x3	½
98	780	4.7	475	66.1	156–1800	L	G	A	7–3	16⅛	FP	St	Ze2	M	NE	LN	dp.BL	GO	Spi	Tim 27450	Ros	Ws6IA	720	a	FD	181½	101½	34½	42½x3	61x5	½
99	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	FP	Wa	Str	M	AL	AL	D.BL	Ch	Spi	Tim 26450	Ros	TWsRIA	536	a	TD	Opt	107⅞	35½	44½x3	60x4	N
100	411	4.2	236	40.0	89–2400	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100tw	Ros	Ws6IA	4b9	a	TD	Opt	Opt	34	40x2½	56x4	½
101	427	4.2	268	45.9	100–2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 26450W	Ros	Ws6IA	525	a	TD	Opt	Opt	34	46x3	56x4	½
102	427	4.2	268	45.9	100–2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450W	Ros	Ws6IA	536	a	TD	Opt	Opt	34	46x3	66x4	½
103	611	4.5	384	54.1	127–2300	L	G	A	7–3	13⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450W	Ros	Ws6IA	720	a	TD	Opt	Opt	34	46x3	66x4	½
104	427	4.2	267	45.9	100–2600	H	C	N	7–2¾	13⅛	FP	Ha	Zen	M	DR	DR	P.BL	Pe	Blo	Tim 26450	Ros	L6IHV	842	a	TX	132	80	33	48x3	64x4	½
105	427	4.2	267	45.9	100–2600	H	C	N	7–2¾	13⅛	FP	Ha	Zen	M	DR	DR	dp.BL	Pe	Blo	Tim 26450	Ros	TrIA	1014	a	TX	132	80	33	48x3	64x5	½
106	611	4.5	396	54.2	120–2000	L	G	A	7–3	13⅜	FP	Ha	Zen	M	DR	DR	dp.BL	Pe	Blo	Tim 26450	Ros	TrIA	1014	a	TX	126¼	74¼	33	45½x3	64x5	½
107	428	4.4	280	45.9	93–2200	L	G	C	7–3	14	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpP	Shu 5582B	Ros	L6IHV	571	a	TD	162	103	34	45½x2½	58x4	N
108	501	4.4	330	48.6	111–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpB	Shu 678	Ros	Ws4IA	238	a	TD	162	100¼	37	46x3	50x4	N
109	529	4.4	350	51.3	114–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpB	Shu 678	Ros	Ws4IA	238	a	TD	138¾	94¾	37	46x3	50x4	N
110	677	...	418	60.0	127–2000	L	G	C	4–3½	11⅜	PC	Wa	Zen	M	LN	LN	D.BL	GO	SpB	Shu 678	Ros	Ws4IA	238	a	TD	141	93

Line Number	MAKE AND MODEL	Wheels Driven—6-Wheelers	GENERAL (See Keynote)						TIRE SIZE		MAJOR UNITS								FRAME	
											ENGINE		TRANSMISSION		REAR AXLE					
			Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS In High	GEAR RATIOS In Low	Side Rail Dimensions	Type
1	Federal..A600D	4R	4½–5	2795	170	206	20000	7700	B7.50/20	DB7.50/20	Con E601	6-3⅞x4½	Own 7784	A 4	No	Cla B642	BF	H	7.16	46.7	6x3½x¼	P
2	(conc'd).T10SW	2R	7	3895	188	224	28000	9600	P34x7	DP34x7	Con 1SR	6-4x4½	BL 607	A 7	No	Tim 58200H	BF	H	7.8	74.1	7½x3½x¼	P
3	FWD.....MX6	6	10–15	12255	200	Op	48000	17800	B13.50/20	DB13.50/20	Wau RB	6-5x5¾	BL 714	U 4	A 2	Wis 131TW	2F	H	8.36	173.	10x3x⅜	C
4	.....X6	4F	6–10	7385	170	Op	36000	12650	B9.75/20	DB9.75/20	Wau SRK	6-4⅝x5⅛	Own U	A 5	Op	Own X	BF	H	7.35	73	7x3x⅜	C
5	(6)Gen.Mo. T90	4R	5–7½	4675	185	220	28000	9520	B7.50/20	DB7.50/20	Own 400	6-4½x5	Own	U 5	Op	Own	WF	R	9.25	76.0	9⅛x3½x⅛	TL
6	.....T95	4R	7–11	7695	189	224	40000	13250	P34x7	DP34x7	Own 525	6-4½x5⅛	Own	U 4	Op	Own	WF	R	8.50	53.3	9⅛x4x⅛	L
7	.....T130	4R	12–15	9470	189	224	50000	14545	B9.75/20	DB9.75/20	Own 616	6-4⅞x5½	Own	U 4	A 3	Own	WF	R	9.50	119.	9⅛x4x⅜	L
8	G-P....75-6SW	4R	6–8	6440	174	Op	39000	9500	B9.75/20	B11.25/20	Wau SRL	6-4⅜x5⅛	Fu VUOG	U 5	No	Tim SW200	WF	R	7.50	53.0	11x3½x⅜	L
9	.....75-8SW	4R	6–8	6400	174	Op	39000	9500	B9.75/20	B11.25/20	Lyc AEC	8-3¾x4¾	Fu VUOG	U 5	No	Tim SW200	WF	R	7.50	53.0	11x3½x⅜	L
10	.....85-6SW	4R	8–10	8695	169	Op	52000	12000	B10.50/24	B12.75/24	Wau 6AB	6-4½x5¾	Fu MHU	U 4	A 3	Wis SD310	DF	R	8.50	10.6	12x3½x⅜	L
11	.....95-6SW	4R	10–12	9640	176	Op	52000	13000	B10.50/24	B13.50/24	Wau 6RB	6-5x5¾	Fu MUH	U 4	A 3	Wis SD410	DF	R	10.2	128.	14x3½x⅜	L
12	H'ndricks h22D	4R	2–6	3900	Op	Op	21000	7000	B7.50/20	DB7.50/20	Wau MK	6-4½x4¾	Fu JVU	U 5	No	Own 985	2B	A	Opt	Opt	6x2½x⅛	P
13	.....36D	4R	5–12	6600	Op	Op	32500	11200	B9.00/20	DB9.00/20	Wau 6SRL	6-4⅜x5½	Fu VU	U 5	No	Own 2513X	2B	A	Opt	Opt	8x3x⅛	P
14	.....38D	4R	12	8000	Op	Op	40000	13200	B9.75/20	DB9.75/20	Wau 6SRK	6-4⅝x5⅛	BL 60–7	A 7	No	Eat 44000	2F	A	Opt	Opt	8x3x⅛	P
15	.....44D	4R	12	9000	Op	Op	42000	14000	B9.75/22	DB9.75/22	Wau RB	6-5x5¾	BL 70–7	A 7	No	Eat 44000	2F	A	Opt	Opt	8x3x⅛	P
16	Hug.....99	4R	10	10305	148	148	58500	15100	S36x8	S40x16	Bud GF6	6-4¾x6	BL 714-703	U 4	A 3	Wis SD410W	2F	R	10.3	139	9x4⅛x⅜	I
17	Ind..95SBT-151	2C	.....	1675	168	186	20000	5500	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SBT151	SF	T	7.4	45.8	7⅛x2¾x⅛	C
18	.....95SW 75	4R	.....	1735	168	186	20000	5800	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SW75	WF	T	7.4	45.8	7⅛x2¾x⅛	C
19	.....17SBT251	2C	.....	3250	188	224	28000	8550	P34x7	DP34x7	Her YXC	6-4⅜x4¾	BL 334	U 4	Op	Tim SBT251	BF	R	6.1	37.8	8½x3x⅛	TL
20	.....17SW251	4R	.....	3475	188	224	28000	9000	P34x7	DP34x7	Hei YXC	6-4⅜x4¾	BL 334	U 4	Op	Tim SW251	WF	R	6.2	38.1	8½x3x⅛	TL
21	..106SW-151	4R	.....	2675	188	212	24000	7500	P32x6	DP32x6	Her WXC	6-4x4½	BL 324	U 4	No	Tim SW151	WF	R	6.4	42.6	8x3x¼	T
22	Ken...186SDT	2C	10	6450	205	235	38000	10500	B9.00/20	DB9.00/20	Her YXC2	6-4½x4¾	BL 1554	U 4	A 3	Tim Sdt310w	2F	H	7.33	104.	9x3x¼	T
23	.....241SDT	2C	10	6850	205	235	40500	11000	B9.00/20	DB9.00/20	Her RXB	6-4½x5¼	BL 714	U 4	A 3	Tim Sdt310w	2F	H	7.33	85.5	9x3x¼	T
24	.....346A	4R	10	8800	210	240	40500	13000	B9.75/20	HaS 160	6-4¼x5½	BL 714	U 4	A 3	Tim 310W	WF	H	7.25	84.5	8x3x⅛	C
25	.....346B	4R	10	8550	210	240	40500	13000	B9.75/20	DB9.75/20	Bud GF-6	6-4¾x6	BL 714	U 4	A 3	Tim 310W	WF	H	7.25	98.4	8x3x⅛	C
26	.....346C	4R	10	9500	210	240	40500	14000	B9.75/20	DB9.75/20	HaS 175	6-5x6	BL 714	U 4	A 3	Tim 310W	WF	H	7.25	98.4	8x3x⅛	C
27	.....386C	4R	10	10200	210	240	50100	14500	B9.75/20	DB9.75/20	HaS 175	6-5x6	BL 714	U 4	A 3	Tim SW410w	WF	H	7.60	103	8x3x⅛	C
28	Kleiber.....280	4R	7½	6000	201	210	28000	10060	B9.00/20	DB9.00/20	Con 20R	6-4½x4¾	BL 714-60	A 7	A 7	Tim Sw200tw	WF	R	7.75	73.6	7x3½x⅛	P
29	340	4R	10	7000	210	215	34000	11900	B9.75/20	DB9.75/20	Con 21R	6-4¾x3¾	BL 714–60	A 7	A 3	Tim Sw300W	WF	R	9.33	88.6	8x3½x⅛	P
30	.....340T	4R	10	8000	215	225	34000	13650	B9.75/20	DB9.75/20	Con 22R	6-4½x5¼	BL 714–60	A 7	A 3	Tim Sw400W	WF	R	10.3	98.1	8x3½x⅛	P
31	La Fran-R...Q6	4R	9–12	11605	216	260	40000	14900	B10.50/20	DB10.50/20	Own 312B	12–4x5	BL 714	U 4	No	Tim SWD410	WF	..	Opt	Opt	12x3½x¼	L
32	LeMoon(9) .701	4R	5–6	4475	187	199	25500	8500	B8.25/20	DB8.25/20	Lyc AEC	8-3¾x4¾	Fu VUOG	U 5	No	Ti 63703-97H	WF	R	6.20	43.8	7x4x¼	B
33	801	4R	6–7	5100	187	199	32500	9720	B9.00/20	DB9.00/20	Lyc AEC	8-3¾x4¾	Fu VOUG	U 5	No	Ti 65703-97H	WF	H	6.75	47.7	7x4x¼	B
34	802	4R	6–7	5350	187	199	32500	9800	B9.00/20	DB9.00/20	Wau 6SRL	6-4⅜x5⅛	Fu VOUG	U 5	No	T65703-97tW	WF	H	6.75	47.7	7x4x¼	B
35	900	4R	7–8	6775	191	203	36000	12000	B9.75/20	DB9.75/20	Wau 6SRL	6-4⅜x5⅛	BL 607	A 7	No	TimSW310W	WF	H	9.25	86.9	9x4x⅛	B
36	1000	4R	8–10	7950	196	208	40000	12600	B9.75/24	DB9.75/24	Wau 6AB	6-4½x5¾	BL 714	U 4	3	TimSW310W	WF	H	9.25	128.	9x4x⅛	B
37	1200	4R	10–12	8500	196	208	40000	14000	B9.75/24	DB9.75/24	Wau 6RB	6-5x5¾	BL 714	U 4	3	TimSW410W	WF	H	9.25	128.	9x4x⅛	B
38	.....1200D		10–12	9750	196	208	40000	14000	B9.75/24	DB9.75/24	Cum.Die H6	6-4⅞x6	BL 735	U 5	No	TimSW410W	WF	H	7.6	47.6	9x4x⅛	B
39	Maccar...SW86	4R	10–12	9000	216	260	38700	.....	B10.50/20	DB10.50/20	Her RXCP	6-4⅝x5¼	BL 615	A 5	No	Tim spec.	W4	..	9.0	59.	12x3x¼	B
40	Mack.....BX	4R	.....	8150	178	207	35400	12000	B8.25/22	DB8.25/22	Own BX	6-4¼x5½	Own BX	U 4	No	Own BX6	2F	A	6.53	46.0	9½x3x¼	C
41	.....BQ	4R	.....	9350	224	248	41500	15000	B9.75/22	DB9.75/22	Own BQ	6-4¾x5⅝	Own BQ	A 4	No	Own BX6	2F	R	6.54	41.9	10½x3⅛x¼	C
42	.....AC	4R	8–15	8500	217	257	50500	14550	P40x8	DP40x8	Own BQ	6-4¾x5¾	Own AC	J 4	No	Own AC	CD	R	9.26	59.4	8x3x⅛	C
43	.....AK	4R	8–15	9000	217	257	50500	15900	B9.75/22	DB9.75/22	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own AK6	2F	A	7.46	47.8	8⅝x3x⅛	C
44	.....AP	4R	8–15	10500	217	257	51000	14850	P40x8	DP40x8	Own AP	6-5x6	Own AC	J 4	No	Own AP	CD	R	9.26	59.4	8x3x⅛	C
45	.....AP	4R	8–15	11000	217	257	50500	16400	B9.75/22	DB9.75/22	Own AP	6-5x6	Own AC	A 4	No	Own AK6	2F	A	7.46	47.8	8⅝x3x⅛	C
46	Mar-Herr...TH310A-6		7½–10	10000	191	229	34070	13800	B9.75/22	DB9.75/22	Her RXC	6-4⅝x5¼	Fu VUOG	U 5	A 2	Wis SD310W	2F	R	9.11	164.	8½x3x⅛	P
47	.....TH320-6		10–12	15000	225	255	43075	18900	B10.50/22	DB10.50/22	Her HXB	6-5x6	BL 724	U 4	A 3	Wis SD420A	2F	R	9.11	189.	10½x3x⅜	P
48	.....TH330-6		12–15	17500	225	255	50130	20100	B11.25/24	DB11.25/24	Her HXD	6-5¼x6	BL 734	U 4	A 3	Wis SD510	2F	R	10.2	189.	10½x3x⅜	P
49	Mor'd....RA-15		4	1550	170	Op	15500	5300	B6.50/20	DB6.50/20	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SBT75	SF	R	5.66	35.0	7⅛x2⅝x¼	T
50	.....RA20	2C	5–5½	1985	184	Op	20000	6350	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SBT151	SF	R	6.16	38.2	9⅛x3½x¼	T
51	P.-A..34L501S4	4R	.....	6600	200	240	34000	13200	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	Co TNU	U 4	Op	Tim SW310	W	A	9.25	49.0	10x3x⅛	C
52	...34K611S4	4R	.....	7200	180	240	34000	14200	B9.75/20	DB9.75/20	Her GXA	6-4¾x5¾	Own618290	U 4	Op	Tim SW310	W	A	7.75	40.6	10x3x⅛	C
53	...44K779S4	4R	.....	7500	180	200	44000	14500	B10.50/20	DB10.50/20	Her HXA	6-5¼x6	Own618290	U 4	Op	Tim SW410	W	A	9.	47.2	10x3x⅛	C
54	Relay....60SW	2R	10	6545	175	205	36500	12000	P38x7	DP40x8	Bud BA6	6-4½x5¼	Fu VU16	U 5	No	Own 60	2R	..	9.09	63.6	8½x3½x⅛	P
55	SterlingFBT152	2R	8½	4580	174	204	30400	9500	B9.00/20	DB9.00/20	Wau 6-110	6-4x4¾	Own UC7	U 5	No	Own	BF	R	7.8	55.5	10x3¼x¼	L
56	.....FDT152	2R	8½	4705	174	204	30400	9700	B9.00/20	DB9.00/20	Wau 6-110	6-4x4¾	Own UC7	U 5	No	Own	2F	R	....	52.7	10x3¼x¼	L
57	.....FDS180	4R	8–10	8925	158	Op	36000	12850	P40x8	DP40x8	Wau AB	6-4½x5¾	Own UC8	U 4	A 3	Tim 310	2F	R	9.1	113.	15x3¼x¼	L
58	.....FDS200	4R	10–12	9510	159	Op	40000	13550	P40x8	DP40x8	Wau RB	6-5x5¾	Own UC8	U 4	A 3	Tim 410	2F	R	9.1	113.	15x3¼x¼	L
59	.....FCS210	4R	15–18	10825	Op	Op	42000	14750	P40x8	DP40x8	Wau RB	6-5x5¾	Own UC8	U 4	A 3	Own	CD	R	9.5	59.6	15x3¼x¼	L
60	.....FDT200	2R	12–12½	7670	178	208	40000	12050	P40x8	DP40x8	Wau 6-125	6-4⅜x5⅛	Own UC2	U 4	Op	Own	2F	R	8.85	58.8	12x3¼x¼	L
61	.....FDT250	2R	16–16½	8855	186	216	50000	13550	P42x9	DP42x9	Wau RB	6-5x5¾	Own UC8	U 4	Op	Own	2F	R	8.85	55.5	15x3¼x¼	L
62	.....FCT180	2R	10–10½	7265	178	208	36000	11200	P36x8	DP36x8	Wau SRL	6-4⅜x5¼	Own UC2	U 4	Op	Own	CD	R	8.2	54.5	12x3¼x¼	L
63	.....FCT200	2R	12–12½	7685	178	208	40000	11800	P40x8	DP40x8	Wau 6-125	6-4⅜x5⅛	Own UC2	U 4	Op	Own	CD	R	9.3	61.8	12x3¼x¼	L
64	Wht.630SW200	4R	5–6	6245	193	205	.....	10000	B8.25/20	DB8.25/20	Own 3AD	6-4x5¼	Own 4B	U 4	No	Tim SW200H	WF	R	6.75	44.2	8¼x3¼x⅛	C
65	...642SW320	4R	7–9	8025	198	210	.....	12670	B9.00/20	DB9.00/20	Own 1AB	6-4¾x5¾	Own 7B	U 4	No	TimSW310W	WF	R	8.5	55.6	8¼x3⅛x⅛	C
66	...643SW420	4R	9–11	8550	198	215	.....	14400	P40x8	DP40x8	Own 1AB	6-4¾x5¾	Own 7B	U 4	No	TimSW410W	WF	R	10.2	69.1	8¼x3⅛x⅝	C

KEY TO ABBREVIATIONS AND REFERENCE MARKS

GENERAL

Chassis Price—Chassis price quoted applies to the standard wheelbase and specifications listed. All prices are F.O.B. factory.

Tonnage Rating—Where a spread of ratings is given the maximum ratings are for ideal operating conditions and the minimum for extremely difficult conditions; the ranges between are for varying operating conditions.

Gross Vehicle Weight—Is chassis weight, plus body and cab, plus payload. Gross vehicle weight given for a model is based on maximum recommended tire size and not on tires listed as standard equipment.

Chassis Weight Stripped—Includes gas, oil and water and all things included in chassis price. Does not include the weight of cab.

Maximum Brake H. P. at Given R.P.M.—Is actual dynamometer reading without accessories.

Tractors—Unless given the designation N (meaning not available as tractor), all standard models may be assumed to be available as tract rs.

(N) Not available as tractor.

(T) This designation accompanying a model number indicates vehicle is specifically designed for tractor use only.

(2) Brockway—Chassis Price not yet established.

(3) Corbitt—Larger engines and corresponding auxiliary units provided on all models.

(4) Day Elder—Model 75—1½ ton—same specifications except price—$945, and larger tire size—B6.00/20 front and DB6.00/20 rear.

(5) Dodge—F-61 available as special tractor truck with 146-inch wheelbase with model designation of F-60, at $2645. G-81 available as special tractor truck with 146-inch wheelbase with model designation of G-80, at $5250. Model G-82 available as special tractor truck, with 146 in. wheelbase, with model designation of G-80 at $5250 and with 170 in. wheelbase with model designation of G-81 at $5285.

(6) General Motors—Gross vehicle weight indicated for each model in table is the **Straight Rating** (combined weight of chassis, body, equipment and payload) for which chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this **Straight Rating**, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment (type number) based on tire capacity and assuming nominal body allowance will result in payload range for each model as shown. Models T-15 to T-61 inclusive are also available for export only as coach chassis. Double reduction axles optional in Models T-45, T-51, T-61, T-83 and T-95 at extra cost. Trailing type axles available on Model T-95 at price deduction.

Gramm—Larger engines and corresponding auxiliary units provided on all modesl at extra cost when type of service demands. Wheelbases and body mounting dimensions may change to suit special requirements. Double reduction axle savailable on all models except AX and BX.

Gross weight indicated for each model in the table is the straight rating. See note (6).

Series CXH is supplied with Hercules JXB engine in Model CXHB and Hercules JXC in Model CXHC.

(7) Grass Premier—Eight cylinder engines available on following models: 45-6 with Lyc. GU at $2700 list; 55-6 with Lyc. HF at $3355; 65-6 with Lyc. AEC at $4065; 35 T-6 with Lyc. GU at $1665; 45 T-6 with Lyc. HF at $3185.

(8a) International Harvester—A-1, ¾ ton, same as A-2 except less spring leaves and smaller tires.

(8b) All Torque and Brake Horsepower values listed are based on engine outputs with all Standard Equipment Accessories running and are the same values obtaining with the truck on the road in actual operation.

(9) LeMoon—Model 600 available with Lyc. AEC at same cost. Models 701 and 801 available with Waukesha 6SRL at same cost.

(10) Sterling—Rocker arm used in place of springs

(*) Sterling—These models also availabe equipped with Cummins Model H Diesel engine.

† Reo—Models 1C and 1D are the longer wheelbase editions of Models 1A and 1B. The frame dimension of both is 7x2⅜x⅛.

†† Reo—2J same as 2H except 166 in. wheelbase and price of $1695

†† Reo—3K same as 3H except wheelbase of 170 in. and price of $2085; 3K same as 3H except 185 in. wheelbase and price of $2155.

Studebaker—S-2 in 141 in. and 165 in. wheelbases has 6⅛ in. frame depth.

(12) White—Each model shown is furnished with different specifications for different tonnage ratings.

MAKES—ALL

AB—American Bosch.
AL—Auto Lite.

B—Bendix.
BB—Borg & Beck.
BE—Bendix front, Eaton rear.
BL—Brown-Lipe.
BO—Bendix front, Own rear.
Bf—Bethlehem.
Blo—Blood.
Bu or Bud—Buda.

C or Col—Columbia.
CB—Columbia front, Bendix rear.
Car—Carter.
Ch—Chicago.
CI—Ignition by compression.
Cl or Cla—Clark.
Cle—Cleveland.
Co—Covert (transmission).
Co—Continental (governor).
Con—Continental.
Cot—Cotta Gear.
Cum—Cummins-Diesel

Det—Detroit Lubricator.
DG—Detroit Gear and Machine.
DR—Delco Remy.

Eat—Eaton.
Ei—Eisemann.
En—Governor built in engine
EV—Electro-Vac (gov.) Pierce.

Fe—Fedders.
Fu—Fuller.

Ge—Gemmer.
GO—G. & O.

Ha—Handy (governor).
Ha—Hannum (steering gear).
HaS—American Car & Fdry.
Her—Hercules.
HS—Merchant & Evans (clutch).
HS—American Car & Fdry. (governor).

Jac—Saginaw.
Jo—Jones.

KP—Handy.

L—Lockheed.
LN—Leece Neville.
Lo—Long.
LO—Lockheed front, Own rear
Lyc—Lycoming.

Mc—McCord.
Ma—Marvel.
ME—Merchant & Evans.
MM—Mechanics Mach.
Mo—Modine (radiator).
Mo—Monarch (governor).

NE—North East.
No—Not supplied.
ns—No Standard.

O or Ow—Own.
Op or Opt—Optional.

Pe—Pierce (governor).
Pe—Perfex (radiator).
Pet—Peters.
PeS—Peters and Spicer.
PS—Peters & Snead.
RB—Robt. Bosch.
Ro—Rockford.
Ros—Ross.
S—Steeldraulic.
Sal—Salisbury.
Sc—Scintilla.
Sch—Wheeler-Schebler.
She—Sheldon.
Shu—Shuler.
SpB—Spicer and Blood.
Spi—Spicer.
SpP—Spicer and Pick.
Ste—Detroit Lubro. (carburetor).
Ste or St—Sterling.
Str—Stromberg.
Ti—Tillotson.
T or Tim—Timken.
TO—Timken front, Own rear.
WG—Warner Gear.
Wa or War—Warner Corp. (steering gear)

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Main Bearings: Number and Diameter	Main Bearings: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	Fuel Feed	ELECTRICAL: Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location, Operation	Lining Area	Drum Material	Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	SPRINGS: Front	Rear	Auxiliary Type
1	318	4.6	202	36.0	80–2600	L	G	C	7–⅝	12	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F318	Ros	L61HV	495	a	TI	155	84	34	40x2½	44x3	N
2	339	4.2	212	38.4	80–2200	H	C	C	7–2¾	13	CC	KP	Zen	M	DR	DR	P.BB	Lo	Spi	Own 7738	Ros	L61HV	623	a	TD	182	102	34	42x2½	50x3½	N
3	677	4.4	460	60.0	125–2000	L	G	C	4–3½	11	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis 131F	Ros	B61MV	504	G	T4	220	145	34	48x3½	40x5	N
4	517	4.5	330	51.3	110–2400	L	G	C	7–3	13	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Own M	Ros	B6IA	864	G	4M	180	137	36	42¾x2½	44x3	N
5	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Cle	Own	Jac	B4rIA	557	a	TX	161	100	34	40x3	50x4	N
6	525	4.5	380	48.6	128–2100	H	C	A	7–2¾	14	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B6IA	817	a	TX	161	100	34	50x3½	45x4	N
7	616	4.5	450	57.0	149–3100	H	C	A	7–2¾	14	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B6IA	965	a	TX	161	100	34	50x3½	45x4	N
8	462	4.6	300	45.9	100–2400	L	G	C	7–3	13	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 26450H	Ros	L6IH	774	a	CD	Opt	100	34	40x3	58x4	½
9	420	5.2	300	45.0	135–3000	L	G	C	5–2¾	11	FP	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 26450H	Ros	L6IH	774	a	CD	Opt	100	34	40x3	58x4	½
10	549	4.5	335	48.6	100–2000	L	G	C	4–3½	11	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 27450tW	Ros	B61M	624	a	CD	Opt	104	34	40x3	58x4	½
11	677	4.4	460	60.0	12 ,–2000	L	G	C	4–3½	11	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 27450tW	Ros	B61M	624	a	CD	Opt	115	34	40x3	58x4	½
12	381	4.6	240	40.8	87–2500	L	G	C	7–2⅝	12	PC	Wa	Zen	M	AL	AL	D.Fu	Ch	Blo	Cla F318	Ros	L4IHV	295	P	TD	Opt	Opt	34	40½x3½	31x3	N
13	462	4.6	300	45.9	97–2000	L	G	C	7–3	13	PC	Wa	Zen	M	AL	AL	D.Fu	Ch	Blo	Tim 27450	Ros	L4IHV	504	G	TD	Opt	Opt	34	40¼x3½	35½x4	N
14	517	4.6	330	51.2	110–2000	L	G	C	7–3	13	PC	Wa	Zen	M	AL	AL	D.BL	Ch	Blo	Tim 27450	Ros	Ws4IA	780	G	TX	Opt	Opt	36	40¼x3½	66x4	N
15	677	4.7	440	60.0	126–1850	L	G	C	4–3½	10	PC	Wa	Zen	M	AL	'L	D.BL	Ch	Blo	Tim 27450	Ros	Ws4IA	780	G	TX	Opt	Opt	36	43x3½	66x4	N
16	638	4.3	410	54.1	126–1850	L	G	C	4–3	10	PC	Pe	Zen	M	RB	No	dp.BL	Yo	Blo	Shu 715-11	Ros	WrIA	792	G	TD	139	88	38	41½x3	53x4	N
17	282	5.3	186	33.7	73–2800	L	G	A	7–2½	10	PC	No	Str	M	AL	AL	P.BL	Yo	Spi	Tim 31020	Ros	L61HV	559	G	TX	140	83	34	37x2½	52x4	N
18	282	5.3	186	33.7	73–2800	L	G	A	7–2½	10	PC	No	Str	M	AL	AL	P.BL	Yo	Spi	Tim 31020	Ros	L61HV	459	G	TX	140	83	34	37x2½	44x3	N
19	428	4.4	283	45.9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5582B	Ros	L61HV	625	G	CD	168	101	34	40x2½	52x4	N
20	428	4.4	283	45.9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5582B	Ros	L6 HV	625	G	CD	168	101	34	40x2½	52x4	N
21	339	4.7	216	38.4	76–2400	L	G	A	7–2⅝	2¾	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5572	Ros	L61HV	559	G	CD	168	101⅜	34	39½x2½	52x4	N
22	453	4.7	300	18.6	98–2200	L	G	A	7–3	14	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
23	501	4.9	330	8.6	110–2200	L	G	A	7–3	12½	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
24	418	4.4	322	3.3	125–2400	H	C	A	4–2¾	10⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
25	638	4.3	410	54.1	126–1850	L	G	C	4–3	10	CC	Bu	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
26	707	4.4	506	60.0	170–2000	H	C	A	7–3½	11	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
27	707	4.4	506	60.0	170–2000	H	C	A	7–3½	11	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
28	411	4.2	236	40.0	89– 400	H	C	C	7–2¾	13	FP	No	Sti	V	RB	DR	D.BL	Ow	Spi	Tim 16302	Ros	T4IA	848	G	TD	180	120	38	44x3	60x4	½
29	427	4.2	267	45.9	100–2600	H	C	C	7–2¾	13	FP	No	Str	V	RB	DR	D.BL	Ow	Spi	Tim 16302	Ros	T4IA	848	G	TD	180	130	38	44x3	60x4	½
30	638	4.2	340	54.0	120–2400	H	C	C	7–2¾	13	FP	No	Str	V	RB	DR	D.BL	Ow	Spi	Tim 17300	Ros	T4IA	848	G	TD	204	130	38	44x3	60x4	½
31	754	5.1	510	76.7	240–2900	H	C	C	4–3½	10	PC	No	Zen	M	DR	DR	dp.Lo	Ow	Blo	Tim 27450tw	Ros	Ws6IA	782	D	a	CD	111⅝	216	34	44x3	None	N
32	420	5.2	300	44.4	130–2800	L	G	C	5–2¾	12	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L6IHV	525	a	CD	162	108	34	39x2½	39x2½	N
33	420	5.2	300	44.4	130–2800	L	G	C	5–2¾	12	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L6IHV	633	a	CD	162	108	34	39x2½	46x3½	N
34	462	4.5	300	45.9	98–2000	L	G	A	7–3	13	PC	Wa	Str	M	AL	DR	D.Fu	Ch	Spi	Tim 35000tw	Ros	Ws6IA	711	a	CD	162	108	34	39x2½	46x3½	N
35	462	4.5	300	45.9	98–2000	L	G	A	7–3	13	PC	Wa	Str	M	AL	DR	D.BL	Ch	Spi	Tim 26045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
36	549	4.5	332	48.6	100–2000	L	G	A	4–3½	11	PC	Wa	Str	M	AL	LN	D.BL	Ch	Spi	Tim 26045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
37	677	4.6	460	61.0	127–2000	L	G	A	4–3½	11	PC	Wa	Str	M	AL	LN	D.BL	Ch	Spi	Tim 27045tw	Ros	Ws4IA	792	a	CD	162	108	34	48x3½	53x4	N
38	672	...	420	57.	125–1800	H	G	C	7–3¼	...	FP	Ow	No	P	No	LN	dp.BL	Ch	Spi	Tim27045TW	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
39	529	4.9	350	51.2	112–2000	L	G	S	7–3	14	PC	Ha	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 26450tw	Ros	Ws6IA	1151	a	TD	198	116	33	42x3	None	N
40	468	4.7	292	43.4	104–2300	L	G	C	7–3	13	FP	Ha	Str	M	NE	NE	P.Own	Ow	Spi	Own BX	Ros	O6IA	1118	a	FD	192	109	33¼	54¼x3	48x3½	½
41	611	5.0	398	54.2	128–2200	L	G	C	4–3½	11	PS	Ow	Str	M	RB	NE	P.Ow	Ow	Cle	Own BQ	Ros	O6IA	902	a	FD	192	111	33¼	50x3½	48x3½	N
42	611	5.0	398	54.2	128–2200	L	G	C	4–3½	11	PS	Ow	Str	M	RB	LN	P.Ow	Ow	Spi	Own AC	Ros	O6IA	1052	a	FD	180	109	37⅝	48x3½	52x4	½
43	611	5.0	398	54.2	128–2200	L	G	C	4–3½	11	PS	Ow	Str	M	RB	LN	P.Ow	Ow	Cle	Own AK	Ros	O6IA	1044	a	FD	180	109	37	48x3½	52x4	½
44	706	4.8	427	60.0	138–1900	L	G	S	4–3½	11	PS	Ow	Str	G	RB	LN	P.Ow	Ow	Spi	Own AK	Ros	O6IA	1052	a	FD	180	109	37	48x3½	52x4	½
45	706	4.8	427	60.0	138–1900	L	G	S	4–3½	11	PS	Ow	Str	G	RB	LN	P.Ow	Ow	Cle	Own AK	Ros	O6IA	1044	a	FD	180	109	37	46½x3½	52x4	½
46	529	4.9	350	51.3	115–2200	L	G	A	7–3	15	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own 3	Ros	Ws2/41A	1836	a	FD	Opt	98	34	44x3	52x3½	½
47	707	4.5	455	60.	150–2000	L	C	A	7–3½	17	PC	Ha	Zen	M	DR	DR	dp.BL	Yo	Blo	Own 3A	Ros	Ws2/41A	1948	a	FD	Opt	128	34	52x4	54x4	N
48	855	4.5	550	72.	180–2000	L	G	A	7–3½	17	PC	Ha	Zen	M	DR	DR	dp.BL	Yo	Flo	Own 4	Ros	Ws2/41A	1948	a	FD	Opt	128	34	52x4	54x4	N
49	282	5.0	176	33.8	73–2800	L	G	C	7–2½	10	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 30000H	Ros	L6IH	412	a	TD	156	90	34	40x2½	44x3	N
50	282	5.0	176	33.8	73–2800	L	G	C	7–2½	10	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 31000H	Ros	L6IH	570	a	TD	168	102	34	40x2½	52x4	N
51	501	4.6	330	48.6	110–2200	L	G	A	7–3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 27050	Ha	T6IA	940	D	CD	186¼	118¼	34	41x3	56x4	½
52	611	4.5	410	54.1	130–2000	L	G	A	7–3½	16⅝	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 27050	Ros	T6IA	940	D	TX	180½	112½	34	41x3	56x4	½
53	779	4.5	510	66.1	170–1800	L	G	A	7–3½	16⅝	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 27050	Ros	T6IA	940	D	TX	180½	112½	34	41x3	56x4	½
54	411	4.5	270	40.8	83–2100	L	G	C	4–2½	12	FP	Bu	Zen	V	AL	AL	D.Fu	Lo	Blo	Tim 35000H	Ha	L4IH	744	P	FX	216	126½	34	42x2½	58x3	¼
55	358	5.0	254	38.5	110–2800	F	G	A	7–2	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000N	Ros	L41HV	596	a	CX	192	91	34	42x2½	57x4	N
56	358	5.0	254	38.5	110–2800	F	G	A	7–2	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000N	Ros	L41HV	596	a	CX	192	91	34	42x2½	57x4	N
57	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	Ws4IA	576	a	CX	Opt	88	34	48x3	58x4	N
58	677	4.4	440	60.0	125–2000	L	G	C	4–3½	11	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	Ws4IA	792	a	CX	Opt	89	34	48x3	58x4	N
59	677	4.4	440	60.0	125–2000	L	G	A	4–3½	11	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	Ws4IA	792	s	CD	Opt	Opt	34	48x3	60x3½	N
60	462	5.5	324	45.9	125–2400	F	G	A	7–3	13	CC	Ha	Zen	M	DR	DR	D.Ow	No	Spi	Tim 26450N	Ros	O4IA	792	a	CX	192	94	34	48x3	(10)	N
61	677	4.4	440	60.0	125–2000	L	G	A	4–3½	13	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	O4IA	792	a	CX	192	93	34	48x3	(10)	N
62	462	4.5	300	45.9	102–2400	L	G	A	7–3	13	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O4IA	1152	S	JX	192	94	34	48x3	(10)	N
63	462	5.0	320	45.9	125–2400	F	G	A	7–3	13	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O4IA	1152	S	JX	192	94	34	48x3	(10)	N
64	396	4.9	250	38.4	100–2100	H	C	S	7–2¾	13	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 6D	Ros	Lr4IHV	514	a	CI	194⅞	109⅞	34⅛	42x3	51½x4	N
65	519	4.0	333	45.9	118–2100	H	C	S	7–3	15	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 12D	Ros	Ws6IA	833	a	CI	194¾	109¾	34⅛	42x3	42x4	N
66	519	4.0	333	45.9	118–2100	H	C	S	7–3	15	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 12D	Ros	Ws6IA	833	a	CI	194¾	109¾	34⅛	42x3	42x4	N

Key to Abbreviations and Reference Marks

MAKES—ALL—Continued

Wa—Waukesha (governor).
Wau—Waukesha.
W or Wis—Wisconsin
Wo—Wohlrab.
Ws—Westinghouse.
Yo—Young.
Zen—Zenith.

BRAKES—SERVICE

Location

2—Two Wheels, rear only
2/4—Two-wheel brakes effective on all four wheels through driveshaft.
T/4—Brake on transmission effective on all four wheels through driveshaft.
4—Four Wheels, front and rear.
4r—Four Wheels, rear only.
6—Six Wheels, front and rear.
J—Jackshaft.
P—Propeller shaft.

Type

I—Internal.
X—External.

Operation

A—Air.
D—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
R—Worm or bevel gearshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
X—External.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Fdry.
D—Dayton.
E—Ermalite.
G—Gunite.
H—Hunt Spiller.
c—Cast iron.
f—Forged steel.
p—Pressed steel.
P—Pressed steel.
s—Cast steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

CLUTCH

Type

D—Multiple disk.
dp—Double plate.
O—Plate in oil.
P—Single plate

ENGINE

Valve Arrangement

F—Inlet valve in head; exhaust valve at side.
H—In head.
L—"L" head.

Camshaft Drive

C—Chain.
G—Gear.

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut.

Main Bearings

r—Rear main bearing.
B—Ball bearing.

Oiling System

CC—Pressure to main, connecting rod and camshaft bearings.
FP—Pressure to main, connecting rod, camshaft bearings and piston pins.
PC—Pressure to mains and connecting rod bearings.
PG—Pump, gravity and splash.
PS—Pressure with splash.
SP—Circulating with splash.

FRAME

Type

I—"I" Beam
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center
Tf—Tapered front

FUEL SYSTEM

Fuel Feed

E—Electric pump.
G—Gravity.
M—Mechanical pump.
P—Pressure.
V—Vacuum.

REAR AXLE

Final Drive and Type

B—Bevel.
C—Chain.
D—Dead.
F—Full-floating.
H—Hypoid.
I—Internal Gear.
2—Double Reduction.
R—Relay—Pendulum Drive.
S—Spiral bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
½—Semi-floating.
¾—Three-quarter floating.

Drive and Torque

A—Radius Rods and Torque Arm.
H—Hotchkiss. (springs)
R—Radius Rods
T—Torque Arm.
U—Torque Tube.

SPRINGS

Auxiliary Type

½—Semi-elliptic above or below main springs.
¼—Quarter elliptic.
C—Coil spring.
N—No.
O—Optional.

TIRES

B—Balloon.
DB—Dual Balloons.
P—High Pressure Pneumatics.
DP—Dual High Pressure Pneumatics
S—Solids.
DS—Dual Solids.
e—Pneumatics at extra cost.

TRANSMISSION

Location

A—Amidships.
J—Unit with jackshaft.
U—Unit with engine.

Auxiliary Location

No—Not furnished.
Op—Optional at extra cost.
A—Amidships.
R—Rear of amidships main transmission.
U—Unit with engine.

WHEELS DRIVEN

2C—Center pair of rear wheels.
2R—Rear pair of rear wheels.
4F—Front and center pair of rear wheels.
4R—Four rear wheels.
6—Six wheels.

Cummins Diesel Spans Country in 78 Hrs. at Fuel Cost of $21.90

CONTINUED FROM PAGE 37

the speedometer, the hairpin curves that she took at 45, the glorious mountain trails with nothing but jagged rocks at their foot, and an exact record of fuel picked up at three stations.

The engine was governed at 1800 r.p.m. and answered the throttle like a passenger car. Although we took on a fan at Nashville in anticipation of bad heating conditions through the hundreds of miles of desert country ahead it was not necessary to install it and as a matter of fact, a goodly part of the trip was made with the radiator shutters partly closed.

The bus was equipped with a double-reduction rear axle of 4.96 ratio. We had cause to wish later that it had had driveshafts about twice the regular diameter. A truck type transmission was installed, having five forward speeds, one being an overdrive of 0.7 to 1, thus giving an overall gear ratio of 3.5 to 1.

At 12.01 p. m. (E. S. T.) Nov. 14, amid the toots of her powerful locomotive horn and the clicking of newspaper cameras, the Cummins expedition left the New York side of the Holland Tunnel bound for points South and Far West. Little did we know what was ahead. More of that later. Anyhow—at exactly 4.11 p. m. (Pacific Coast Time) we checked in at the Western Union telegraph office, Los Angeles, on Thursday, Nov. 17. Total elapsed time certified by Western Union, 91 hrs. 10 min.; actual running time, 78 hrs. 10 min. after deducting stops to pick up dry lunch and fuel oil, and the time consumed by an axle breakdown.

In the first seven hours we had touched five states. Within three days, we were only 700 miles from our goal—almost 25 hrs. ahead of the running schedule Mr. Cummins had so carefully worked out. Then came Lordsburg, N. M. (it might have been Waterloo). We had just checked in at the Western Union station, and were about to swing up to Phoenix and the home trail. The road led across the railroad tracks—and there it ended. Cummins at the wheel, he shifts gears, gives her the gun, and thar she stands right on the tracks, everything shipshape except the axle.

The recorder (by Servis) tells the story, shows how we lost about six hours working out our salvation. How it was done is another story. But we did it, that is, the Cummins engine did.

Throughout the long trek over hill and dale, over mountain ranges, across hundreds of miles of desolate desert country, the engine worked like a charm. It ticked off the willing miles at top speed and answered the accelerator at every turn. Let no one dispute PERFORMANCE, at least on this run. It took grades like an antelope in overdrive with a total gear reduction of 3.5 to 1.

Lugging ability? This engine pulled down to 650 r.p.m. by the tachometer on the instrument board and LUGGED until a shift into gear. Then it took anything (and we climbed 4600 ft. in several places) at speeds from 15 m.p.h. up.

Diesel knock and smoke? Well, we didn't hear any knocks whether on level stretches at idling, or when climbing gruelling grades. Starts like a top at the first kick of the 12-volt starter. Some color in the tail pipe at idling, but seemed to be mighty clean when under way. In fact, the exhaust should be clean because the injection of fuel is controlled and accurately metered according to the demand of the throttle.

Now for the figures that fired our enthusiasm and kindled the interest of the transportation men out where distances are measured in hundreds of miles and anything under a mile elevation is just an anthill.

According to our log the speedometer read 828 at the start—4048 at the finish, a total mileage of 3220. This is the figure we shall use in our computations, although the crew felt that the actual mileage was at least 100 miles more. The difference may lie in the fact that the speedometer was certified at speeds much below the actual operating range on the trip. For example, the mileage on this route as calculated by the Automobile Club of So. California is 3261; and we surely covered 50 miles of detours in Tennessee, Virginia, and Texas.

The weight of the bus on scales in Los Angeles was 19,500 lb. Estimated total weight including five passengers, luggage, fuel oil, etc., 21,550 lb.

The bus was equipped with two fuel tanks, each of 80 gal. capacity, a total of 160 gal. Your scribe was the fuel oil register of the party and stayed awake nights to be sure that no extra fuel was added by coyotes, jackrabbits. or oil derricks. Our log shows the following:

"At Nashville, the first stop for fuel, in the wee hours of the night, took on 117 gal. from 50 gal. drums which were there in readiness. This was a furnace oil of 28-30 gravity Baume.

"At Dallas, Texas, added 91 gal. of furnace oil of 38-40 gravity Baume.

"The last fuel stop at El Paso, Texas, required only 77 gal. This material was 32-34 gravity Baume, 34-37 Saybolt viscosity."

Upon arrival at Los Angeles we checked the fuel situation.

Price of fuel naturally is variable throughout the country and just for the sake of comparison we took the figure of 6 cents per gal. as a fair price although it is probably a little high.

On the basis of 6 cents per gal. the cost of fuel for the whole trip across the continent was $21.90, or three-quarters of a cent per mile.

Fuel economy averaged for the entire run is obtained by dividing 3220 by 365 which gives 8.9 miles to the gallon. Almost passenger car performance!

The engine was remarkably clean at the end of the run indicating freedom from oil leakage and losses through joints and gaskets. This is borne out by the experience of two large operations in San Francisco which we had the good fortune to scrutinize personally. The actual oil shrinkage for the entire trip was 5½ qt. However, crankcase oil was dumped twice, once because viscosity was too low for the prevailing atmospheric conditions, the other time because the bus was tied up anyway and it was thought it would be a good idea to run with fresh oil.

Much has been said about the thermal efficiency of the Diesel engine. If the Diesel saves on fuel it does so only because it converts nearly all your fuel dollars or cents into useful work. And by the same token it wastes but little of the fuel dollar in heating up the radiator or the floorboards. Our trusty log shows the following comments on this score noted as we pushed along:

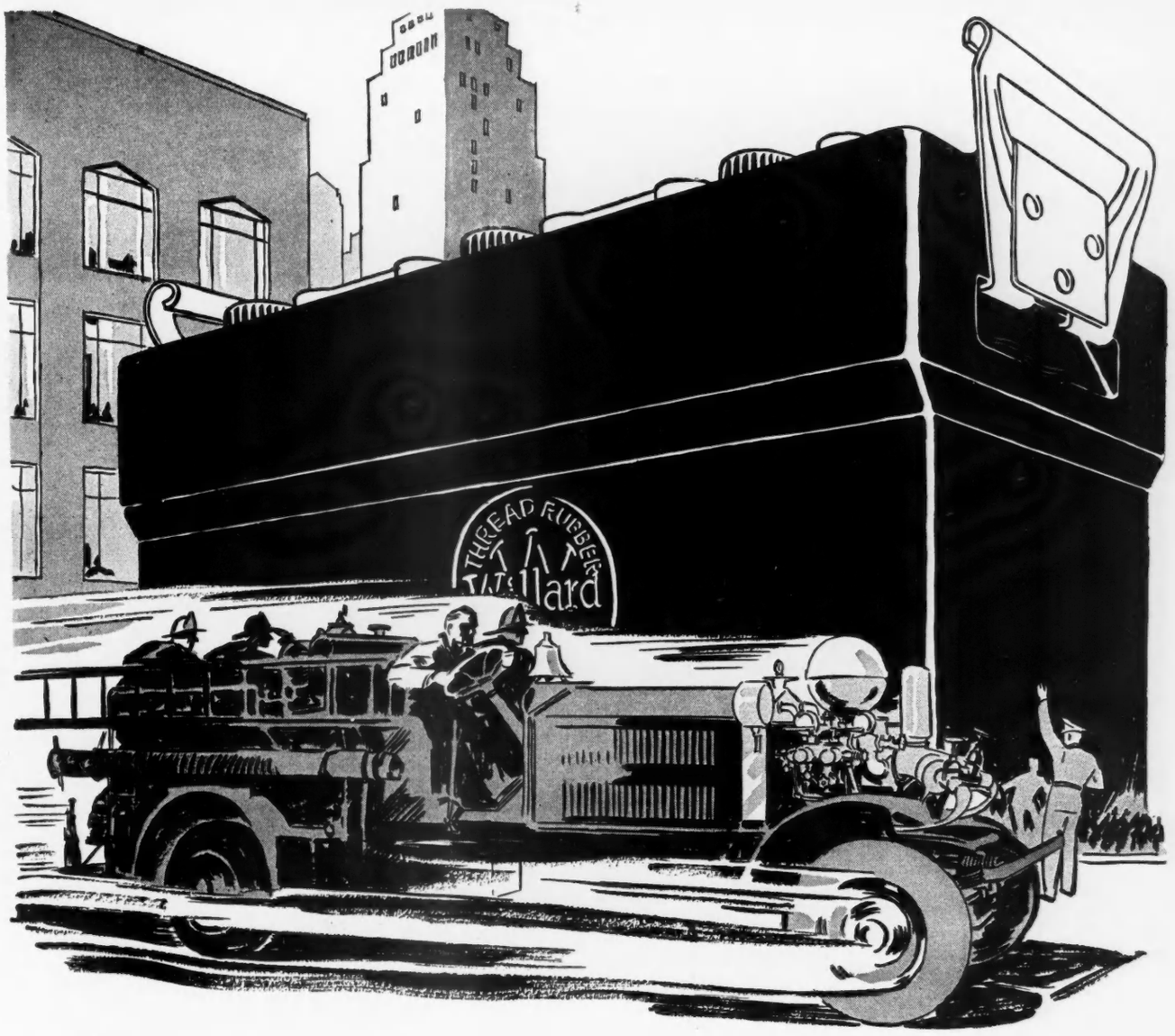
"Monday, Nov. 14, climbing elevation of 2750 ft. speed 15 m.p.h. with engine at 1800 r.p.m. under governor control. No fan, radiator shutters partly closed, water temperature 200 deg. F. at crest, drops to 160 deg. F. when level stretch is reached.

"Outside temperature toward evening about 50 deg. F. shutters closed, water and oil at 150 deg. F. Heating the bus becomes problem because of the low temperature of the radiator water. We take to blankets.

"Wednesday, Nov. 16. A stretch of desert about 700 miles long through the purple sage country of Texas. Temperature of radiator water about 160 deg. without fan although the radiator shutters have been removed. Up moderate grades in this region and New Mexico at 45 m.p.h. in overdrive (total reduction 3½ to 1) with water temperature about 180 deg. F.

"Thursday, Nov. 17. Home stretch up the sand desert of Southern California to the Imperial Valley. Temperature in the bus kites to 90 deg. F. Must be pretty hot outside. Water temperature without fan stays at about 160 deg. F. on levels. Water goes up to 200 deg. F. on some of the grades but comes right down when the level stretch is reached.

All in all the Cummins Diesel gave a good account of itself. Not only did it take everything, mountains, desert, detours, and whatnot, but it made the home stretch from Holtville to Los Angeles, through a hot, dry, sandy desert at a speed of 65 m.p.h. and an average speed of 50 m.p.h. for a stretch of about 250 miles.



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Think of the time you would save if all business problems were as simple as this.

You need to read only one dozen words to know the difference in tires. Here are those words: *Seiberling Air Cooled Tires give 51% more rubber for only 18% more cost!*

A simple invention enables Seiberling to build a tire that steps far ahead of the field. That invention is Air Cooling. Holes run crosswise through the tread. As the tire revolves and the holes open and shut, cool air is forced through and heat—the internally generated heat that makes it necessary for other manufacturers to keep tread thicknesses down—is carried off. Air Cooling patented by Seiberling makes possible this thicker tread.

But—there is more to this tire than its far thicker tread. Yes, more than record-breaking mileage, almost complete elimination of punctures, easier riding, and lower cost per mile. For those holes also make this the only tire in the world THAT NEVER WEARS SMOOTH.

When the first deep tread is gone, these holes form a *second* tread. This *second* tread grips and protects against skids, right down to the last mile. These are the facts — simple and understandable.

Learn more about this remarkable tire. 'Phone your local Seiberling Dealer—or, if you don't know his name, write to the Seiberling Rubber Company, Akron, Ohio.

TIRES